

THE
BRICKVILDER
AN
ARCHITECTURAL
MONTHLY



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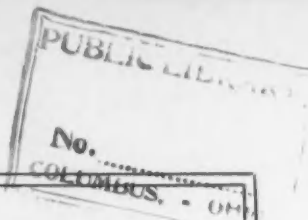
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BIGELOW & WADSWORTH; BLISS & FAVILLE; JAMES PURDON; MATTHEW SULLIVAN.

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NOTICE.—The regular mailing date for THE BRICKBUILDER is the 25th of the month; for instance, the January number was mailed January 25th. The Post Office Department now sends the larger part of the editions of all publications by freight, and this requires an additional time for transportation of from two to eight days, depending upon the distance of the distribution point from the publication city. The publication date of THE BRICKBUILDER will be moved forward gradually so that copies for a given month will reach subscribers even at distant points within that month.



DETAIL OF BELFRY, CHURCH OF SAN FRANCISCO, ACATEPEC, MEXICO.

The dark tiles laid herringbone are rough red, unglazed. The small square tiles are blue with white ornament; the others used in friezes, architraves, etc., are green, orange, and blue. Practically all of the cornices are formed in tile. The decorated cyma of the upper cornice is in stucco, picked out in color.

THE BRICKBUILDER

JULY, 1912

VOLUME XXI.

NUMBER 7.

Notes on Hospital Planning.—I.

S. S. GOLDWATER, M.D.,

Superintendent, The Mount Sinai Hospital, New York.

SOME three years ago, having completed a residence of eight years in two hospitals (one planned in 1870, the other in 1902), having traveled for the purpose of inspecting hospitals, and having examined fifty or more volumes dealing with the principles and practice of hospital construction and administration, I proceeded to plan a "model" hospital ward. I have participated since then in the planning of sixteen hospitals, and have been invited to examine and criticize the half-completed plans of many more; but from not a single one of these exercises has the original "model" ward emerged, although in every instance I have encountered the utmost willingness on the part of the architect to fall in with any suggestion for which either a practical or a theoretical value could be demonstrated. I must add that while I have no fixed ideas on the planning of hospitals, and am by no means prepared to dogmatize on the subject, my general ideas upon the making of a hospital plan have undergone no decided change since the "model" ward was sketched. Why, then, one may ask, have I been content repeatedly to think one way and to plan another? Is it not because the planning of a real hospital is a concrete and conditioned problem, while the designing of a "model" ward is an abstract or unconditioned one?

Real hospitals, in this country at least, are not planned in unlimited space. They have been so planned in Germany; but even in Germany there is manifest to-day a decided disposition to get away from the text-book hospital of many widely separated but uniform pavilions—a type which grew out of the hygienic necessities, that is to say the unhygienic conditions and the undeveloped sanitary science of forty or fifty years ago. The hospitals of that day represented in a large measure the understanding of engineers rather than the experience of medical administrators and trained nurses; they expressed the faith of theoretical hygienists who, if they had been obliged to live in and administer the hospitals they built, would long ago have done what the builders of hospitals in Germany are now only beginning to do, namely, to substitute convenience of arrangement for symmetry of design, and a utilization of the facts of nursing care for the too ready acceptance of untried or disproved theories of decentralization and the like.

The many-acre-covering German hospitals, which we love to photograph, but could not reproduce generally in America if we would, owing to lack of unlimited space and

of large capital for individual hospital enterprises; and which we should not copy if we could, because the hospitals in question are fundamentally wrong in their overwhelming size and sprawling administrative plan,—these great hospitals are built "regardless," as the expressive popular phrase goes; and this is true notwithstanding the fact that a learned treatise, indicating forethought and the careful study of numerous *German* examples, accompanies each one.

Perhaps I am conveying an erroneous impression. I do not mean to suggest that the plan of the great German pavilion hospital of the day disregards rules and runs to eccentricity; quite the contrary is the case. Such a hospital is built regardless of everything except rules. It conforms not only to rules but to statutes, for in Prussia these things are regulated by law, or by ministerial decrees which have the force of law, down to such minute details as the width of stairways, the height of stairway treads, etc. Germany has achieved its great success in hospital designing precisely because German architects work according to rule and always conscientiously; but for the same reason the great municipal hospitals of Germany are characterized by defects which materially lessen their value to the hospital patient, who in this case is the "ultimate consumer."

During the great French railroad strike one of the most important orders given to the strikers was to "follow the rules of the road literally." No simpler way could have been found to disrupt traffic and ruin the road. In hospital construction, as in hospital administration and in countless other departments of organized human endeavor, the strict observance of rules formulated from partial points of view, and independently of each other, leads to disaster. Rules need to be pared and trimmed and expanded and adjusted so that they will fit together and interlock; but their essential values must be preserved. To distinguish the essential from the non-essential requires, in hospital practice, a first-hand acquaintance with all of the intricacies of hospital work. This includes a knowledge of the shifting theories and changing methods of physiology, pathology, bacteriology, therapeutics and hygiene; a knowledge of the principles and practice of nursing; an appreciation of the varying degrees of physical dependence encountered in hospital patients, an understanding of the capacities, aptitudes and weaknesses of the average nurse; familiarity with the character and tendencies of hospital internes and

employees, and much besides. All of these things one must know and understand in the intelligent application of rules of planning and of construction to the making of any hospital; and in the planning of a particular hospital one must reckon besides with local surroundings, with the available resources of the community or of the section of the community from which the hospital draws its support, and with the needs of that other section of the community which it is designed to serve.

Good text-books of hospital construction are far more numerous than good hospital plans; which is equivalent to saying that it is much easier to acquire familiarity with rules of hygiene and of architecture than to master the trick of applying them. For text-book purposes every question is answered, or may be answered, easily. Pick up any text-book of hospital construction, and run through its table of contents: there is an infallible rule for the selection of the site; the height of the buildings, and their relation to each other, are readily determined; the proper orientation of the wards is stated; the proper ward dimensions, height, width, length, and cubic contents, are given; window space is scientifically determined and distributed; approved methods of lighting, heating, and ventilation are described; the plumbing, even, is illustrated; and always, with particular unction and authority, *all corners are rounded*. Though text-books disagree in other particulars, there is always unanimity of opinion on the subject of the rounding of corners and the avoidance of horizontal dust-catchers.

I propose now to discuss a number of rules borrowed from text-books or laid down by governmental authorities. After showing that one may break such rules with impunity—must, indeed, play hide-and-seek with them in order to succeed at all in hospital planning, I shall venture to offer for consideration a few rules derived from my own experience, which I hope and doubt not will be broken in their turn, whenever common-sense, in given circumstances, so demands.

It is in the writings of eminent specialists, upon whose work the progress of hospital architecture largely depends, that one finds the most notable combinations of the scientific and the impracticable; for it is in the hands of original and independent thinkers that scientific deductions find their most uncompromising application. William Atkinson, whose valuable contributions to the study of hospital orientation are so well known, recently published a new volume upon "The Orientation of Buildings, or Planning for Sunlight"; in which volume a chapter on hospitals concludes with the presentation of a "Pyramidal Type of Ward Unit." The design, which is strikingly original, is the logical outcome of research and thought concentrated upon the subjects of orientation and sun-exposure. Whether the pyramidal type of ward unit which has been worked out with so much skill and ingenuity will ever take its place in actual hospital architecture, is doubtful; certainly it will not if all the hospitals of the future are planned, as they should be planned, for sunlight *plus other desiderata*.

Mr. Atkinson's pyramidal unit is a building of three stories, in which, on the first floor, there are two widely separated wards of ten beds each; on the second floor, three single rooms and two six-bed wards (the latter far apart and communicating with each other only by means

of a tortuous corridor); and on the third floor, a six-bed open-air ward, and a four-bed enclosed ward, or ten beds in all. Here are forty-five beds, with only three separation rooms among them, arranged in a manner which gives practically five distinct nursing units. The supervision of these wards at night cannot safely be entrusted to less than five nurses; and these nurses, if properly posted, cannot temporarily relieve each other from duty for the customary midnight meal, or for any other purpose. An efficient and at the same time reasonably economical nursing scheme will never square with a ward unit so planned.

If the attainment of a maximum quantity of "sun hours" were the sole aim in hospital planning, the virtue of the pyramidal unit would be at once acknowledged; but maximum sunlight must not be purchased at the sacrifice of other weighty hospital values, when a little less than maximum exposure is attainable without any similar loss; besides which, the assumption that the maximum of sunlight is desirable for *all* hospital patients leads to such absurdities as may be witnessed in the great Virchow Hospital in Berlin, for example, where, if I am not mistaken, a single type of ward is called upon to fulfil the requirements of general surgery and of ophthalmology. If the ophthalmologist of the Virchow Hospital had been invited at the proper time to express an opinion on this subject, the architect who planned the Virchow pavilions for sunlight might have learned something about the relation of sunlight to inflamed and irritated eyes, with resulting advantage to thousands of patients, past, present, and future. Nevertheless, the great value of sunlight in and about a hospital building is admitted; and it justifies Mr. Atkinson fully in deciding in favor of the northeast and southwest, or the northwest and southeast, position for the long axis of a typical hospital ward, on the ground that all outside walls are thus exposed to sunlight at some portion of the day throughout the year, which is not the case where a north-and-south or an east-and-west system of axes is adopted,—all of which is not the least bit inconsistent with the choice of an east-and-west or any other position for a given ward in a given location, inasmuch as sensible hospital planning, first, last, and all the time, is planning *with reference* to rules, and not *in accordance* with them.

Let us turn now to another phase of the general problem of ventilation, of which the subjects of exposure and position are aspects,—the question, namely, of space allowance for the individual ward patient. In England the Local Government Board makes certain suggestions with respect to air space, which the parish authorities, who direct the planning of the poor-law infirmaries and work-house hospitals, are expected to follow. The requirement for wards for adults in poor-law infirmaries, and for the wards of hospitals attached to work-houses, is 600 cubic feet per patient; for children's wards, 960 feet is called for, while for isolation wards 2,000 feet of air space per bed is authoritatively demanded. In the construction of military hospitals, the English War Office calls for 1,200 cubic feet per bed in ordinary wards, and 2,000 feet in infectious wards. To cite a German example, Prussia, in its elaborate regulations for the construction of hospitals, demands an allowance of 30 cubic meters for each adult ward bed, or 25 cubic meters for each child's bed; while

for single rooms 40 cubic meters is set down as a minimum.

The Prussian figures just quoted are absolute; on the other hand, the New York State Board of Charities, while registering in advance its approval of a standard space allowance, subsequently, by its inspectors, visits every hospital under its jurisdiction and issues a special permit, this permit being based upon the *total related conditions* of each sick-room, large or small. In Prussia, a ward is a ward, and no questions asked; but in New York State one finds that while 1,200 cubic feet per bed is demanded by a general rule, 800 cubic feet may in some instances be tolerated where the demand for hospital accommodations is exceptionally heavy, and where the ward is one in which there exists (I quote the official language) "full and adequate means of ventilation." The writer respectfully submits that an enlightened administration does not apply its rules relentlessly where their rigid application would prove harmful, but keeps in mind the object for which the rules primarily exist, and modifies its demands accordingly.

The purpose of a rule which governs the cubic contents of a hospital ward is to insure an adequate supply of fresh air to the inmates. But room dimensions and the supply of oxygen do not always increase and decrease together; for climatic and topographical conditions greatly influence natural ventilation. Is it necessary to point out that two wards of identical design may differ markedly in their exposure to favoring air currents? Or that the opening of a window or transom has one effect in a clean rural or suburban environment, and quite another effect in the midst of a smoke-laden city atmosphere? And is it not known that one hospital may have to do primarily with acutely sick persons, ninety per cent of whom keep their beds, while in another is found a large percentage of convalescents, who spend much of their time on the grounds, on balconies, or in day rooms, and hence out of the ward, with resulting advantage to the bedridden?

There are countless other ways in which wards may differ in air-value though agreeing in dimensions. Sup-

pose a ward to be open on three sides—so far, so good; the building may be hemmed in by other buildings which cut off the normal air currents of the locality, or it may stand free for every breeze that blows. Again, a municipal hospital may be subject to periods of strain which compel the lamentable overcrowding of its wards; its neighbor, planned for a private hospital corporation by the same architect and in the same manner, is perhaps free from such temporary stresses. A ward may connect at its extremity with a corridor which is directly ventilated on one side, on both sides, at its end only, or not at all. A ward may be supplied with mechanical ventilating apparatus, or it may be without it. The separation rooms attached to a ward may be few or numerous; obviously the availability of separation rooms for special cases has an important bearing upon the atmospheric purity of the ward. In one hospital it is the practice to admit numerous visitors for several hours each day; in another the number of visitors is smaller and the visiting hours fewer. But it is unnecessary to pursue the subject further, for it must now be perfectly plain that one must consider not only the plan of the hospital structure, but the neighborhood, and the administrative practices and tendencies of the institution as well, when deciding whether the space allowance for each bed shall conform to standard, shall exceed it, or shall be permitted to fall below it.

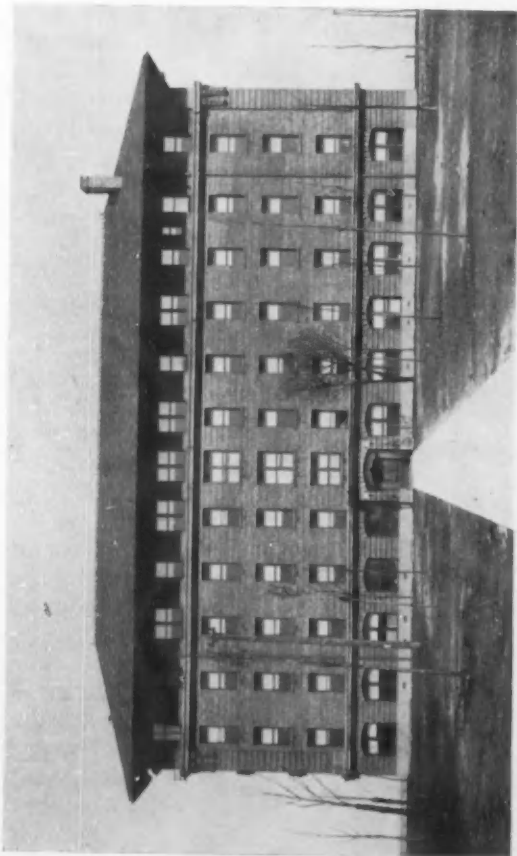
A few weeks ago the writer was invited to look over the plans of a small hospital designed to occupy a restricted site in the heart of New York City. The program called for a certain number of beds, and in endeavoring to meet this requirement and at the same time to conform to the recommendations of the State Board of Charities concerning air space and floor space, the architect had cut down to an utterly impracticable width the corridor adjacent to the wards. Under such working conditions as these a fine appreciation of relative values is required to decide where the line shall be drawn between rule and practice; to render such decisions with discretion is of the essence of skilful hospital planning.

Description of Hospital Buildings.

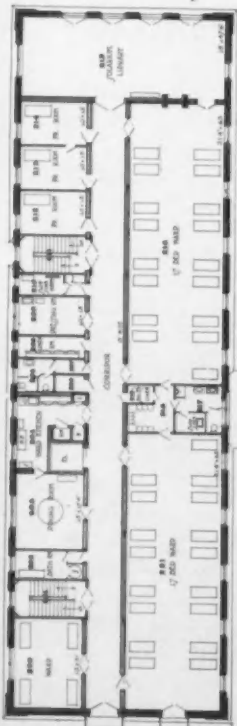
ILLUSTRATED ON PAGES 178-181.

GARY HOSPITAL, GARY, IND. PAGES 178, 179. The hospital is built and maintained by the U. S. Steel Company for the benefit of the sick and injured in their employ, and consists of a main building with a three-story power house connected by tunnel. The exterior is built of brick and brown stone with a red tile roof. Accommodations are provided for 126 patients with a total of 156 beds. Upon the interior the main entrance, reception room, and offices are wainscoted in Italian marble 9 feet high, with tile floors and bronze doors and frames. Eighty-five per cent of the floors are tile and marble, while the corridor walls are of Italian marble. The receiving room for patients has an encaustic tile floor; the waiting room has a brick wainscoting, art-marble floor, and oak finish; the sun rooms, 25 by 50 feet each, have red quarry tile floors, brick wainscoting 8 feet high, oak-timbered ceilings, brick mantels, and French windows; the wards have white tile floors with marble base and border; the X-ray

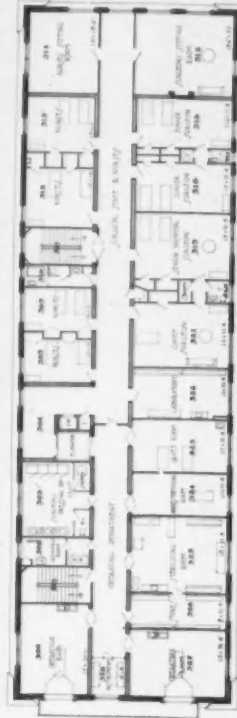
room has a black marble floor and flat black walls, and the kitchen, together with the cold storage, stock room, and bakery, have red quarry tile floors and white enamel brick walls; the basement provides for vegetable and drug storage rooms, in addition to the space allotted for machinery; in the operating department on the fifth floor, two rooms, 15 by 21 feet, are provided with north light. These rooms are 16 feet high and have north windows running straight for 10 feet, then at a 45-degree angle to the ceiling. The windows are double, with heating apparatus placed between, insuring ample heat and protection against sweating rooms, frost, or air currents. The attic floor provides rooms for trunks and storage. The building is heated with a vacuum system and ventilated with the exhaust system which takes the air from both the floor and ceiling. All woodwork is of oak except in the operating room, where enameled birch is used. The total cost was \$300,000, while the buildings, exclusive of the grounds or



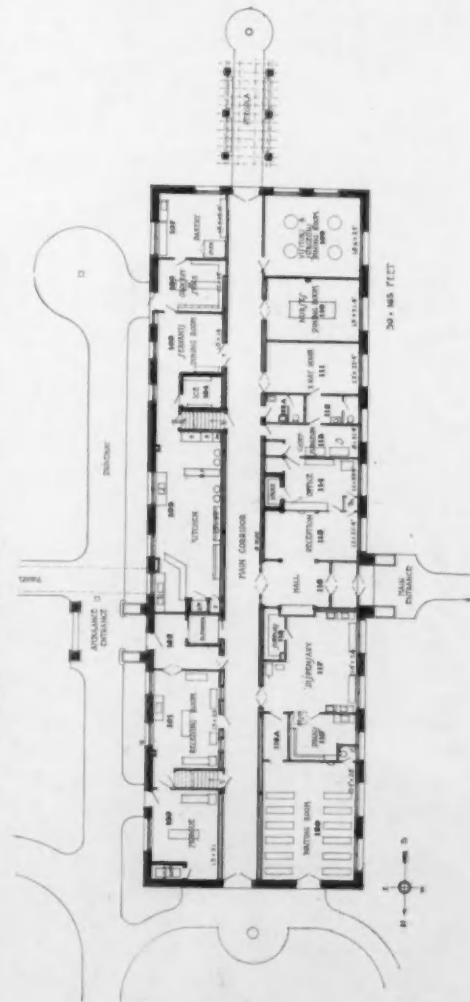
GARY HOSPITAL,
GARY, IND.
George L. Harvey,
Architect.



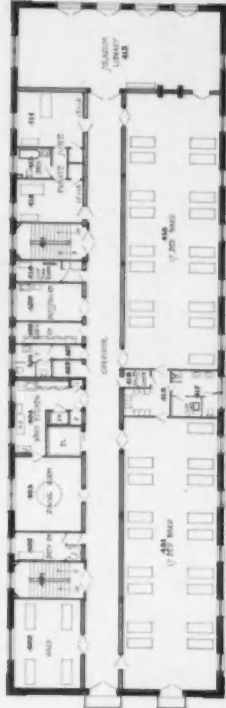
SECOND FLOOR PLAN.

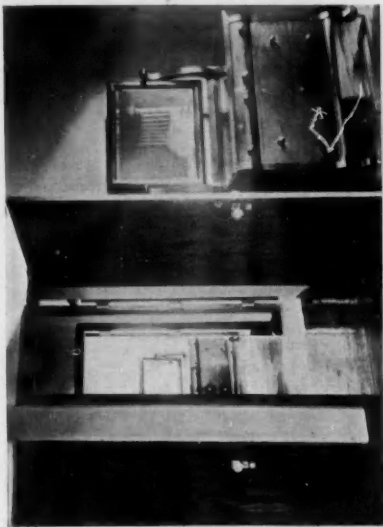


FIFTH FLOOR PLAN.

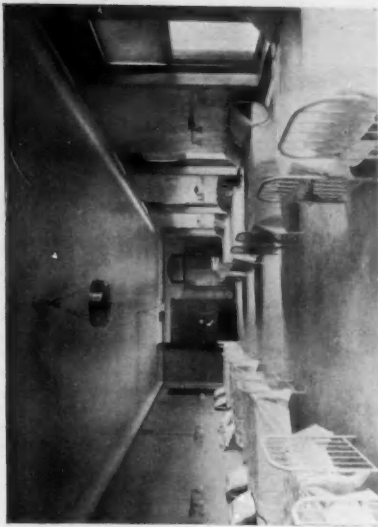


FIRST FLOOR PLAN.

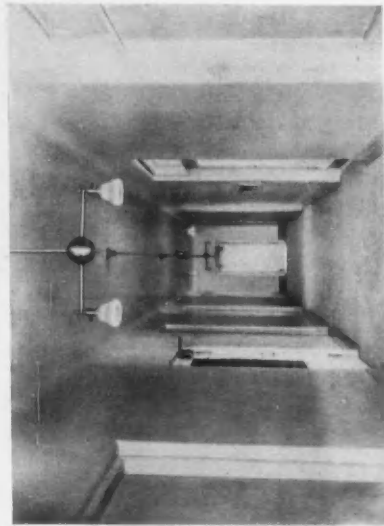




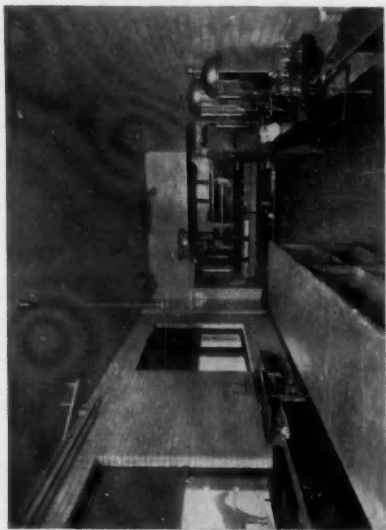
TWO-ROOM SUITE.



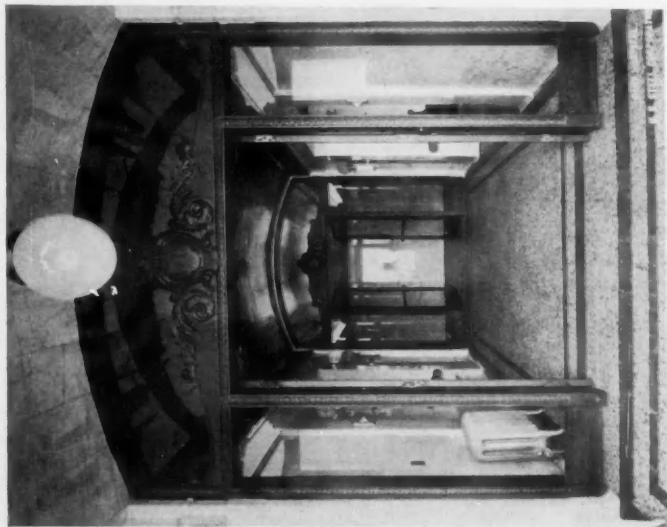
WARD.



OPERATING CORRIDOR.



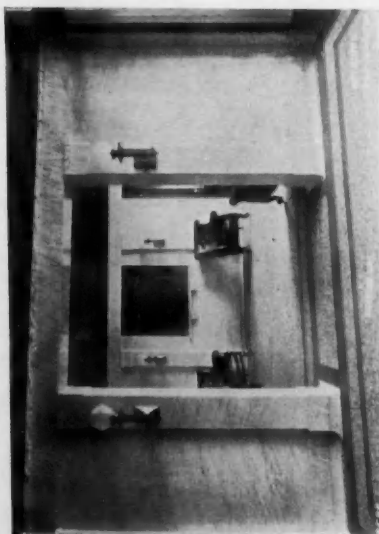
KITCHEN.



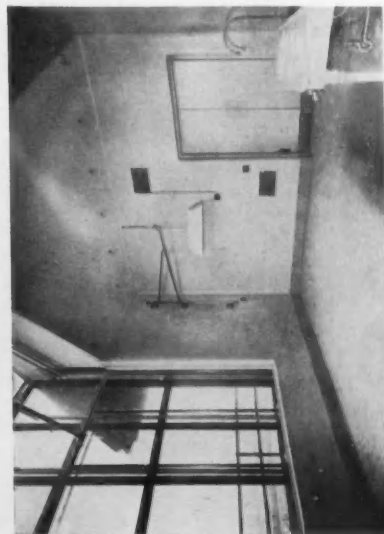
ENTRANCE HALL,
GARY HOSPITAL, GARY, IND.
George L. Harvey, Architect.



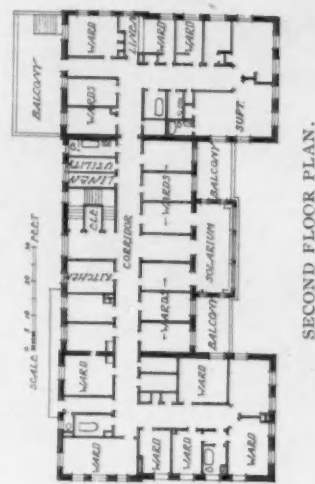
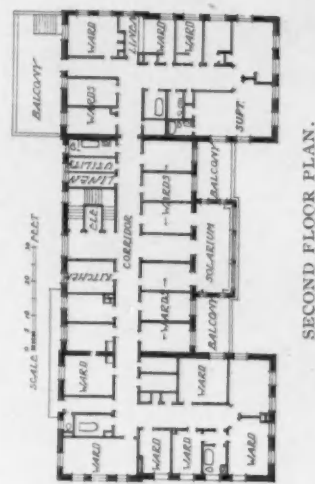
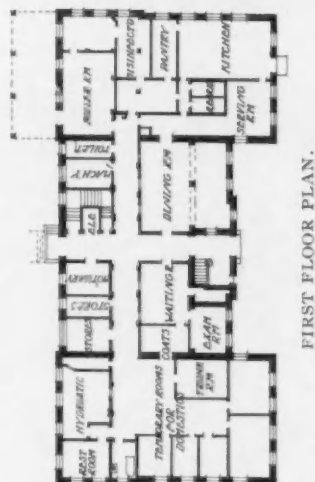
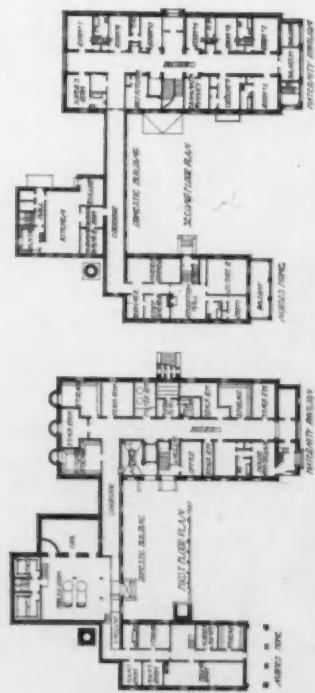
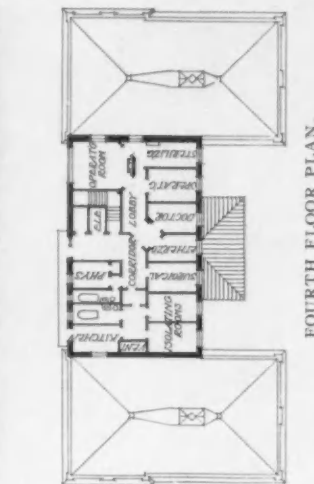
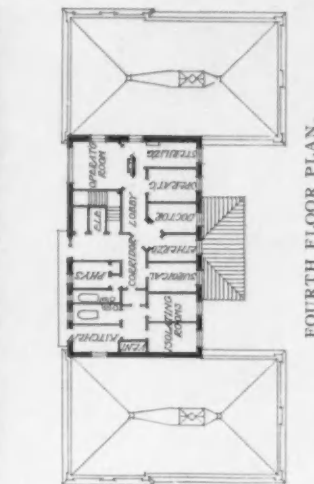
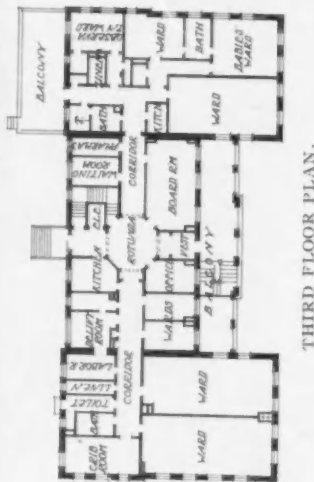
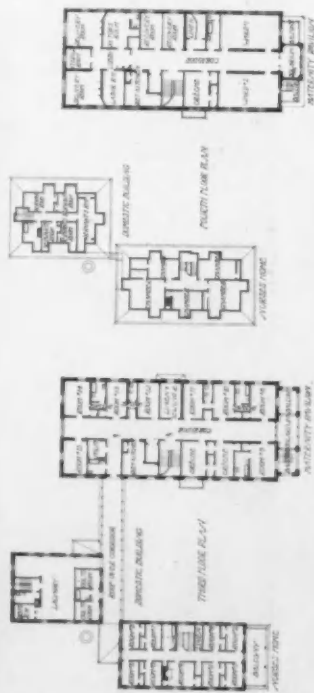
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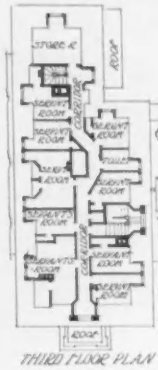


OPERATING ROOM.

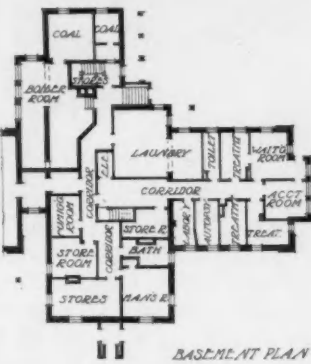


WESSON MATERNITY HOSPITAL, SPRINGFIELD, MASS.
Kendall, Taylor & Co., Architects.

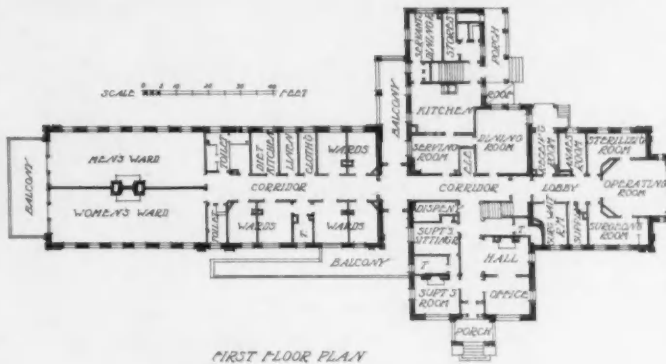
HOMEOPATHIC AND MATERNITY HOSPITAL, YONKERS, N. Y.
Kendall, Taylor & Co., Architects.



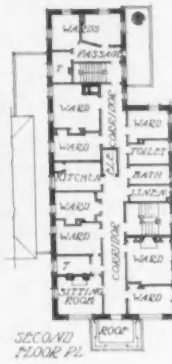
THIRD FLOOR PLAN



BASMENT PLAN

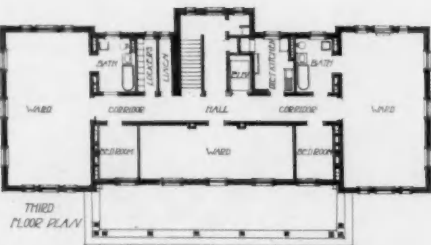


FIRST FLOOR PLAN

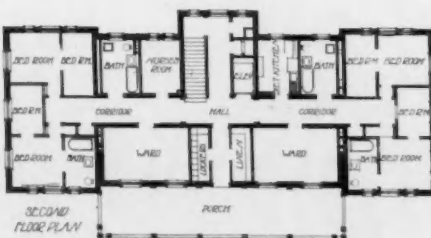


SECOND FLOOR PLAN

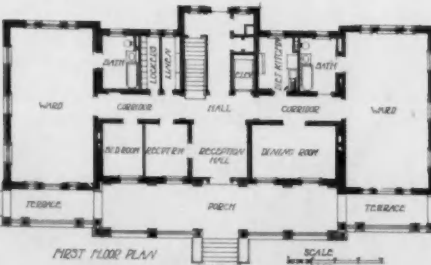
THOMAS HOSPITAL, PEABODY, MASS.
Edward F. Stevens, Architect.



THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN



FRANCIS OLIVER JOHNSON MEMORIAL WARD,
GARFIELD HOSPITAL, WASHINGTON, D.C.
Wood, Donn & Deming, Architects.

furnishings, cost \$200,000, or approximately \$1,570 per patient-bed.

WESSON MATERNITY HOSPITAL, SPRINGFIELD, MASS. PAGE 180. The hospital is of the pavilion type, consisting of the main building or maternity pavilion, 104 by 48 feet, the domestic building, 42 by 32 feet, and the nurses' home, 60 by 32 feet. The exterior is of buff brick with terra cotta trimmings; the solarium of copper, the airing balcony of the nurses' home of wood, and the wide, overhanging cornices of cypress stained a rich brown. The pitch roofs are of black slate and all flashing, ridge, and hip rolls of heavy copper. Accommodations are provided for thirty adult patients, eighteen nurses, seven female domestics, two male employees, and a house physician. In the maternity pavilion the floors are of terra cotta block, the partitions of plaster block, and the walls of lime mortar, except in the corridors, toilets, baths, diet kitchen, etc., where hard patent plaster forms a dado 6 feet high. In the solarium, corridors, and kitchen department the floors are of terrazzo, in the entrance vestibule and rotunda of white Italian marble, and elsewhere of maple with doors of veneered birch. The nurses' home has floors of maple, trimmings of North Carolina pine, and walls painted in lead and oil or finished in white enamel. The heating is by indirect gravity system in the pavilion and direct in the other two buildings. The total cost of the buildings, including the architects' fee, was \$175,000. There are 529,000 cubic feet, figuring from the under side of cellar walls to one third the height of the pitching roofs, which gives an approximate cost per cubic foot of 33 cents. It was necessary to fill in the lot on two sides to a depth of 25 feet against a retaining wall which materially affected the cost. The furnishings amounted to \$10,000, which is not included in the total cost.

HOMEOPATHIC AND MATERNITY HOSPITAL, YONKERS, N. Y. PAGE 180. The hospital follows the urban plan on account of the restricted area of the site and accommodates seventy-five patients, one interne, and seven domestics. The domestic quarters shown on the first floor are temporary until the erection of the administration and service buildings, which will complete the hospital group. The exterior is of red brick with white terra cotta trimmings. Upon the interior the floor treatment varies to suit the needs of the different rooms; for the first floor linoleum is used, for the toilets, baths, operating department, and hydriatic room white marble terrazzo, and for general use wood. Finished doors and frames are of white ash. The rotunda has a mosaic floor, groined ceiling, and moulded casings. Walls of the operating department and labor and delivery rooms are of enamel, elsewhere of hard

plaster, painted and tinted. The stairs are of iron with black slate treads. Gravity ventilation and direct, direct-indirect, and indirect radiation systems have been installed. The total cost was \$124,000, the cubage 341,000 feet, giving a cost per cubic foot of 36.36 cents, which figure does not include equipment or furnishings.

FRANCIS OLIVER JOHNSON MEMORIAL, WASHINGTON, D. C. PAGE 181. The building, which is a part of the Garfield Hospital group occupying more than ten acres of ground, is used exclusively for children and infants. The exterior is of dark red brick of various shades with a slate roof. There are four suites of rooms arranged for mothers, each consisting of two rooms and bath. Diet kitchens, 10 by 12 feet, are provided on each floor in addition to the covered corridor which connects this building with the kitchen of the main building. The windows are spaced to permit of wall room for two cribs between. The system

of heating for all wards is direct-indirect steam furnished from the main building. There are also vent registers which carry the vitiated air into the roof space from where it is discharged. Fireproof construction has been used throughout the building, which is 92 feet long, 32 feet wide, and three stories in height, with an additional two-story porch 52 feet by 12 feet. The floors are of tile block filling, the partitions of metal lath and plaster, and the stairs of iron with slate treads. The total cost, exclusive of furniture, was \$36,000, making a cost per cubic foot of 25 cents.

THOMAS HOSPITAL, PEABODY, MASS. PAGE 181. The building is a type of the modern suburban hospital, located one mile from the center of the town. It is built of red brick with artificial stone trimmings of gray color and slate



OPERATING ROOM, GARY HOSPITAL.

roof. The plan is of the Latin cross type with the short end facing north. Twenty-nine patients are accommodated in wards and private rooms. Airing balconies extend along the south end and the southeast side of the administration building, while the private rooms of the second story have a large airing balcony over the connecting corridor, as well as over the center entrance. Upon the interior the finish is of ash and birch, with plaster walls and maple floors. The gravity system is used for ventilation and has the outlets near the floor, while the heating is by indirect radiation from radiators placed in plenum chambers in the basement. The north end is occupied wholly by the operating department and designed with the idea of attractiveness as well as practicability. The total cost of the building was \$61,000, and the cost per cubic foot approximately 22 cents. The cubical contents are 278,000 feet, figured from one foot below the basement floor to the average height of the roof.

The Development of Duplex Apartments.—II. Studio Type.

ELISHA HARRIS JANES.

A REVIVAL of duplex apartments came about in an unexpected manner. Perhaps it should not be called a revival, as it was not due to copying, repeating, or seeking precedence; but it was rather the copying of a type of building which had a very logical development and filled a decided although limited want. This type is the studio duplex apartment. It is this same type which also brought the return of the co-operative apartment in a changed form.

Fifteen years ago there were very few really satisfactory studios. One or two studio buildings had been erected, but these buildings were rather old and did not completely fill the want. Other studios were over stables, in back yards and loft buildings; many in out of the way places, with few conveniences if the artists wished to live in connection with them or near them. This resulted in a group of artists under the leadership of Mr. Henry Ranger meeting and all agreeing to rent studios in any building erected for that special purpose. Such a building would be in the nature of a specialty, therefore they could not persuade a speculative builder or investor to see the advantage of such an undertaking, as he did not care to pioneer. The artists then decided to raise the funds themselves, build and be their own owners. A company was formed and duly incorporated and each one contributed a certain amount toward the cost of the building, and received in return bonds and certificates of the company together with the exclusive right of occupancy of one of the studio apartments, or the right of subletting the apartment and collecting the rent. On the other hand, he was proportionately liable according to the value of his holdings for the running and operating expenses of the building. Instead of gathering the same number of owners as there were apartments, a certain number of apartments were left for general rental, the income of which would be divided proportionately among the owners. Thus an owner would save in his rental the profit usually paid to the owners and holders of apartment houses, and in addition would receive his proportionate share of profits from those apartments rented to the public.

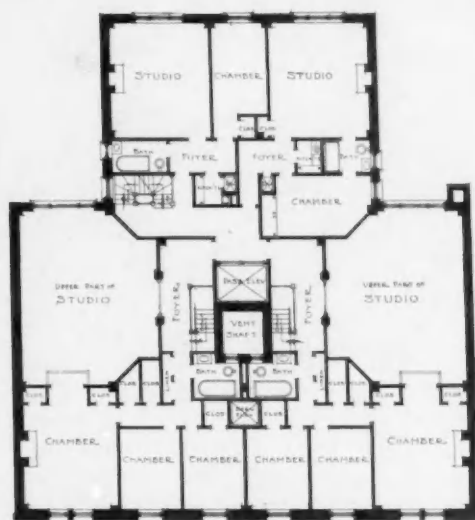
This was the second start of the co-operative apartments in only a slightly different form than a generation ago; and, strangely, the term has been so closely allied with the duplex apartment since then that to many people they are synonymous; although many duplex apartments have been built by private investors and many co-operative apartments have been built without duplex apartments.

Fig. IV shows one of the first of the studio type of apartments to be built. It was clear to see that in order

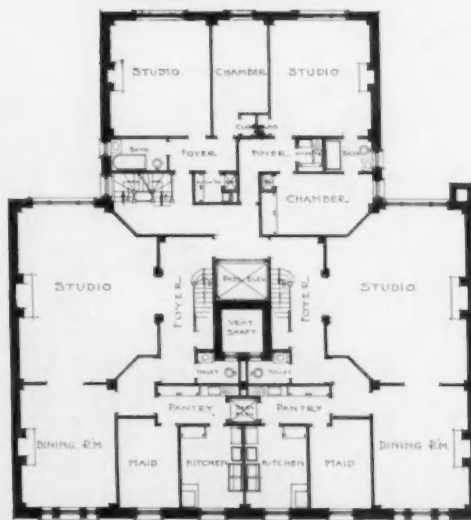
to have a successful studio with good light it was necessary to have a room 18 to 20 feet high, but the smaller living rooms, bath rooms, kitchens, with such ceilings would be out of proportion and unsightly. This led to the suggestion of the mezzanine floor to each studio, keeping the dining room, reception room, and kitchen on the floor with the studio; and the chambers and bath rooms on the mezzanine floor and reached by a small staircase. As each owner had separate ideas to carry out, many were the interesting varieties which took place in the smaller details—in the decorations, stairs, and small balconies from the mezzanine hall looking into the studios.

All of the early types were practically the same as this plan, and when built on the narrow streets as the first ones were in 67th street, they violated the tenement house law, because the heights of the buildings were more than one and one-half times the width of the streets. By the placing of a public dining room and kitchen on the first floor, they were allowed to be classified as apartment hotels for a short time, until the authorities became stricter and decided hereafter to term them "tenements." This prevented the repetition of these studios on the narrow streets. The building was termed seven stories, as the seven studios on the façade would show, when in reality it was fourteen stories in

the rear. To bring it within the required limited height of 150 feet and still keep the required 9 feet in the height of the ceilings, it was necessary to use the thinnest of floor construction and minimum depth of beams. It was allowed to measure from the floor to the ceiling proper, not counting any beams projecting below, so by using a



THIRD FLOOR PLAN.



SECOND FLOOR PLAN.

FIG. IV.



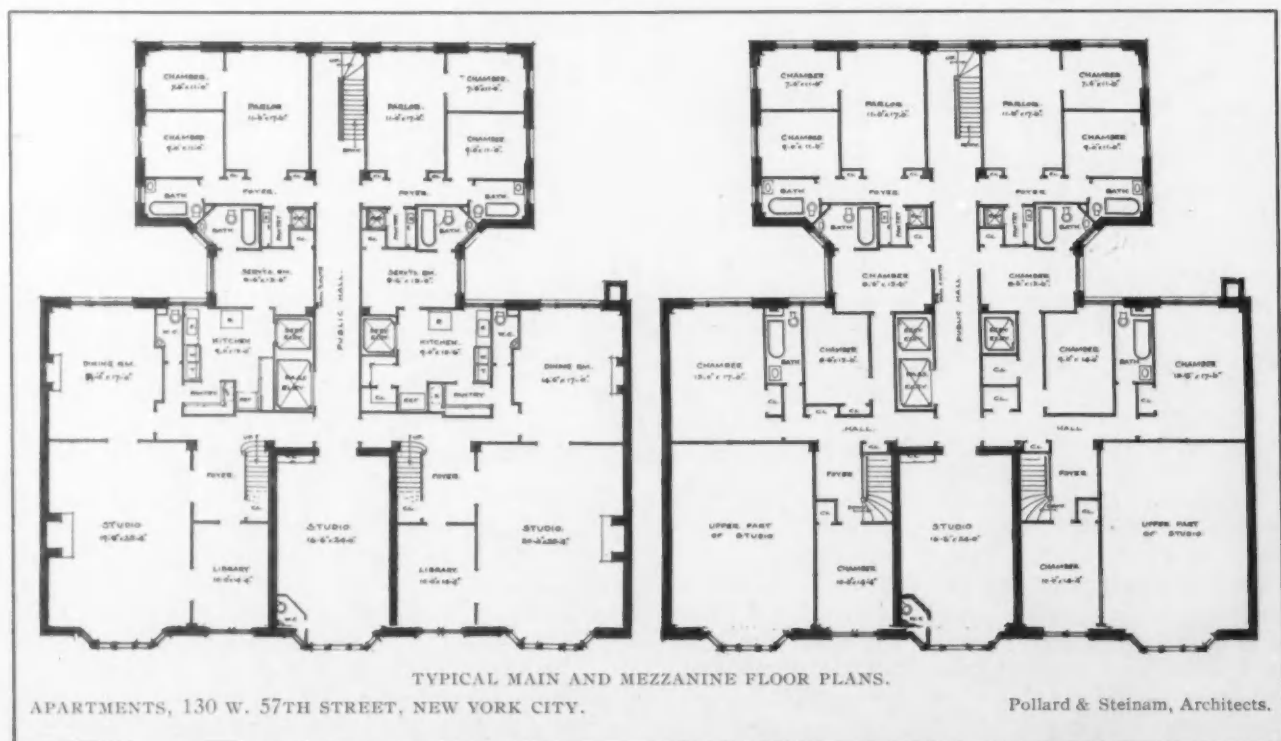
VIEWS OF TWO STUDIOS.

flat arch at the top of the beams and allowing the beams to show, considerable space was saved; and the plan was arranged so that the beams occurred in partitions or were symmetrical in the rooms.

The first of these buildings proved so successful that many were erected within the next few years after the first

one was started. These apartments rented readily to artists, musicians, literary people, and those who enjoyed having receptions requiring large rooms, yet were willing to live in smaller low ceiling rooms.

The north side of the street was selected in the earlier building, which required that the studios be placed in the



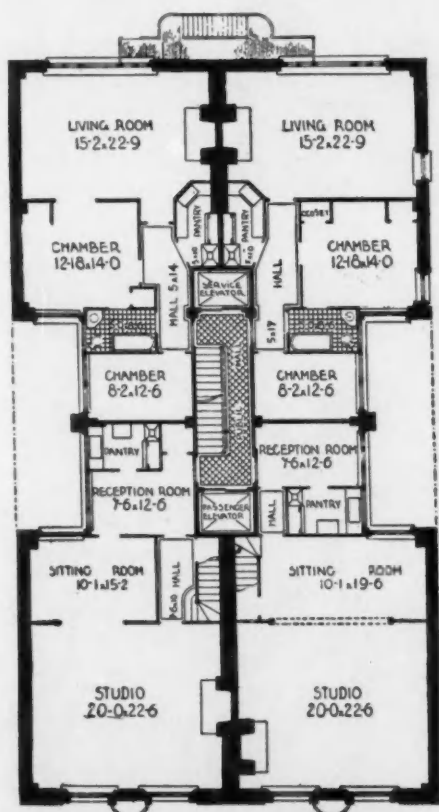
rear. The plan shows how compactly it has been worked out, showing two sets of apartments with studios running through two stories, and in the rear two studios on each floor with low ceilings.

A larger apartment built by the same architects at 130 West 57th street was on a much larger scale than any erected previous to that. At the same time it shows how the studio dominated the entire plan. In the first illustration we see how everything has been subordinated to the studio, which is placed in the rear of the building, and in the front we have the kitchen and dressing rooms, the position of which would make the speculative builder cry with horror.

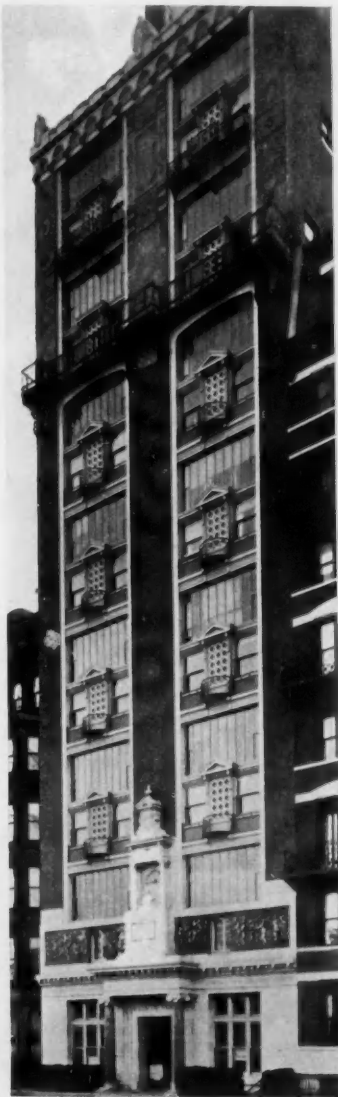
In the second illustration, as the building was placed on the south side of the street, they were able to place the studios in the front of the building, and the smaller rooms to the courts or rear. Here two complete duplex studio apartments have been arranged, facing

This building being on the south side of the street, all the studios had to be on the front, therefore the plan has combined studio apartments with smaller ones in the rear. By referring to the plans, one will see how successfully and with what little space the stairs to the upper floors were arranged, and the chance which was given for the high ceiling room and the effective balcony. This plan, though, by not having kitchens, came under the head of a hotel and was not subject to the tenement house law. This admits of an entirely different plan from the others that have been shown.

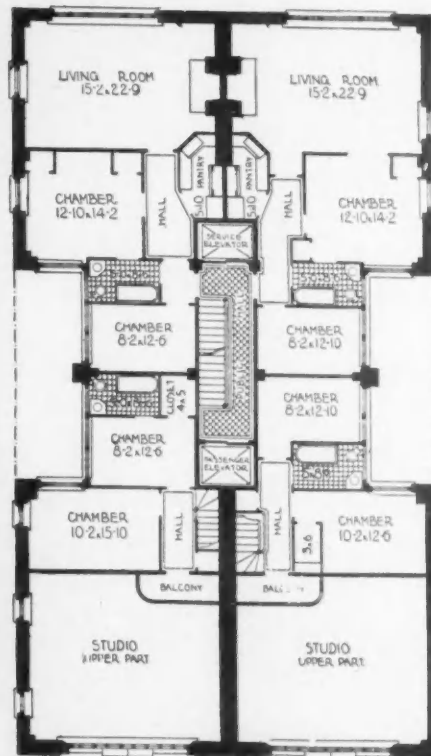
Perhaps the largest, handsomest, and most successful of the real studio apartments is that designed by Charles A. Platt, at 66th street and Madison avenue. The building has no outward sign upon the façade to indicate that there are studios, for the reason that the building is on the northeast corner, therefore all the studios had to be in the rear. As the studios were the principal feature, he allowed them to dominate the plan, placing them with the north light;



TYPICAL FLOOR PLAN.



GAINSBOROUGH STUDIOS,
NEW YORK CITY.
C. W. Buckham, Architect.



TYPICAL MEZZANINE PLAN.

the north to accommodate the artists. The rear apartments did not have the studio feature, although the parlor has a very large window; but there is arranged a third studio facing to the north, which may be engaged in connection with the smaller apartment, and access gained through the public hall.

A later one which has also attracted a great deal of attention, especially on account of its unique façade, is the Gainsborough Studio Building, on Central Park South.

and on the corner, in that part of the plan where it would be impossible to arrange for a studio with north light, a residential apartment has been introduced. The illustration of the stairway shows what an attraction this feature becomes. It explains the fascination of having a relief in an apartment where everything has been on one floor.

The two illustrations of studios give a very good idea of the wide range there is in their treatment, decoration, and

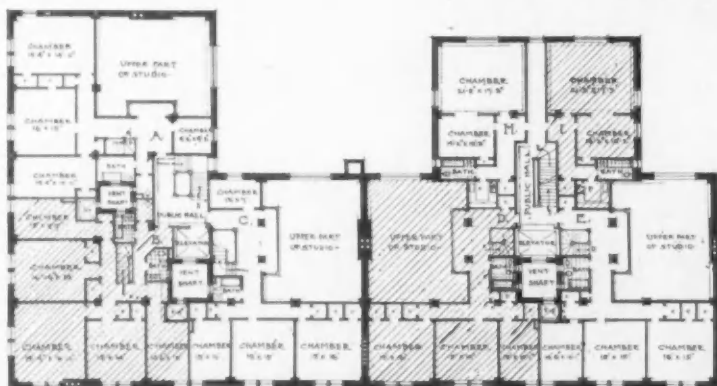
finish to satisfy the individual tenant or owner. At the same time, when their proportions are examined they show how inappropriate they are when used just as a parlor. They require large hangings, pictures, or sculpture which an artist generally has, and wishes and needs the height to display.

This building is an excellent example of the profit which has come to the architecture of the city, due to the introduction of this special type of building,

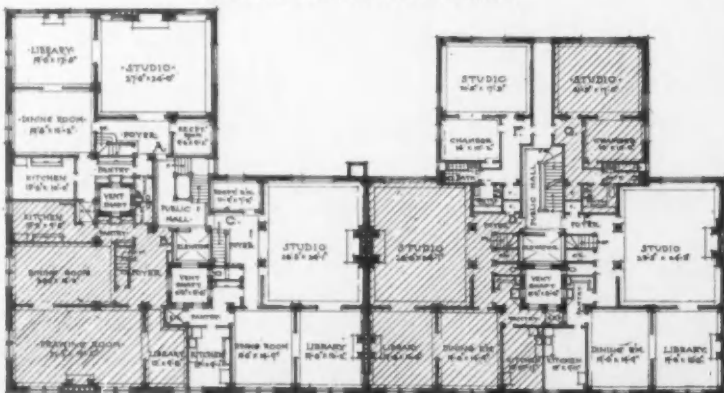


STUDIO APARTMENTS, NEW YORK CITY.
Charles A. Platt, Architect.

and the co-operative feature. With the introduction of this new problem, the owners turned to the best architects to carry out work which required great experience. This has resulted in the many excellent examples which we now have of apartment houses. And these examples have caused the building operators to take notice, and to engage, if not the same architects, at least a higher grade of talent for their buildings than they have heretofore.



PLAN OF MEZZANINE FLOORS.

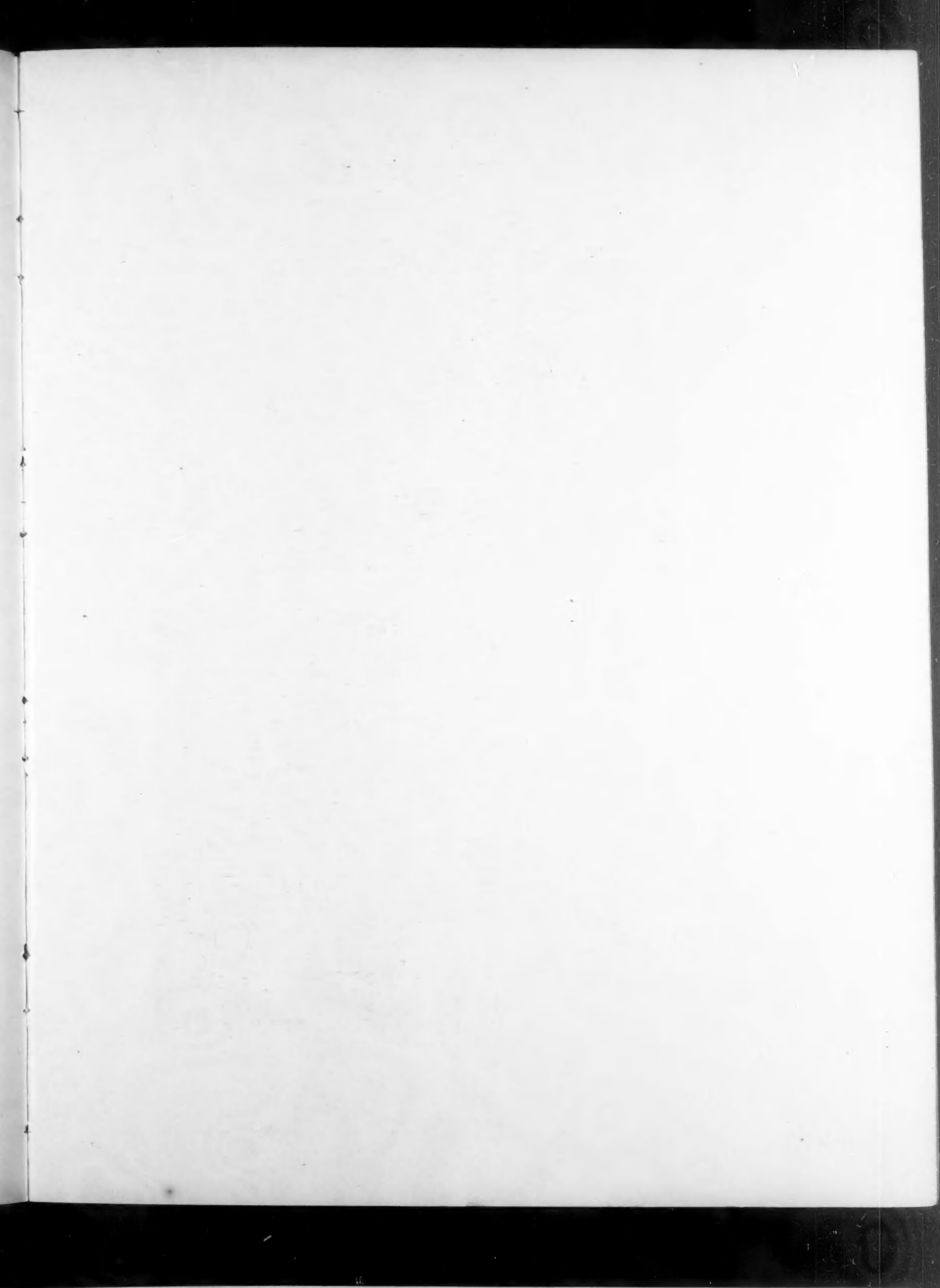


PLAN OF MAIN FLOORS.

STUDIO APARTMENTS, NEW YORK CITY.

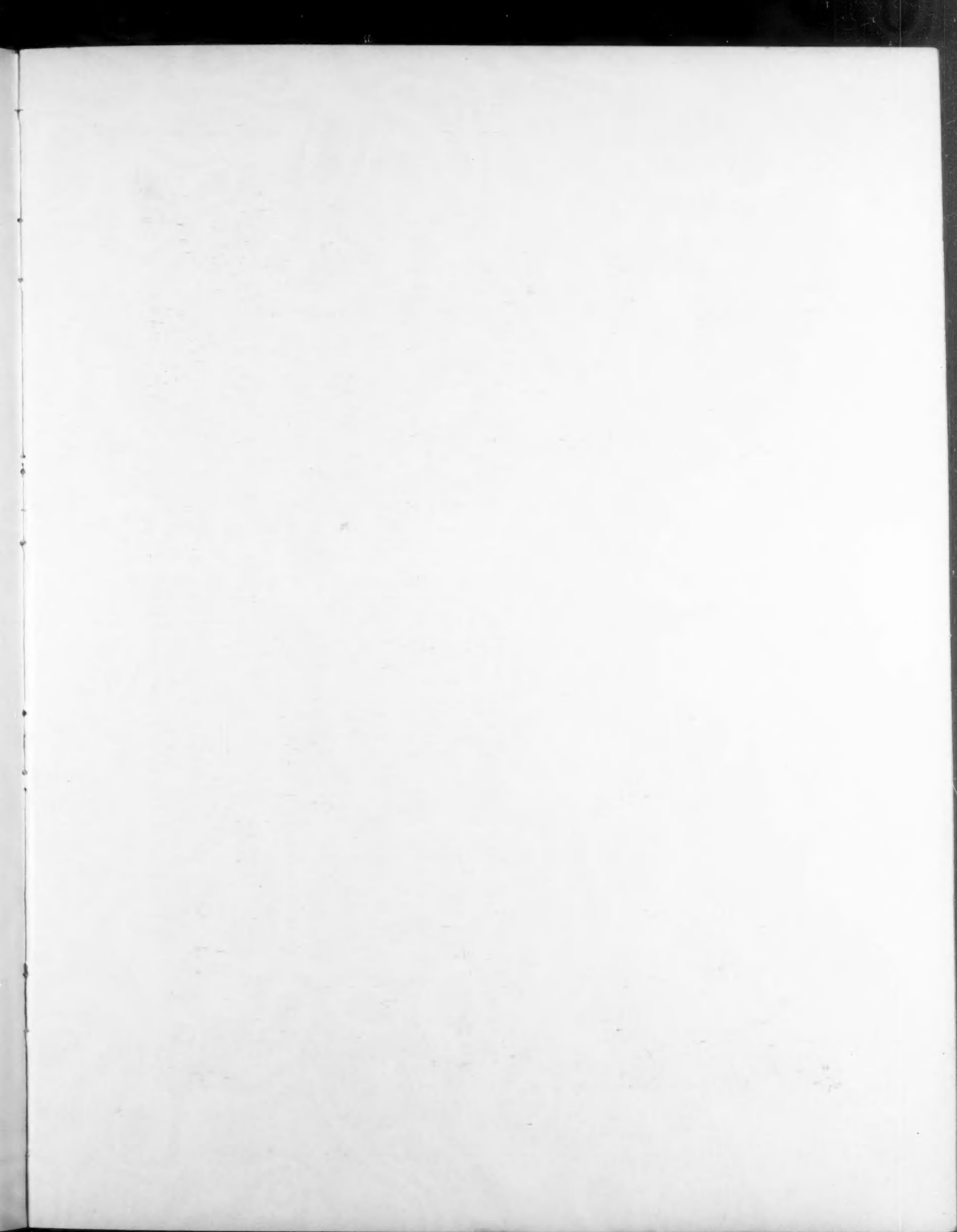


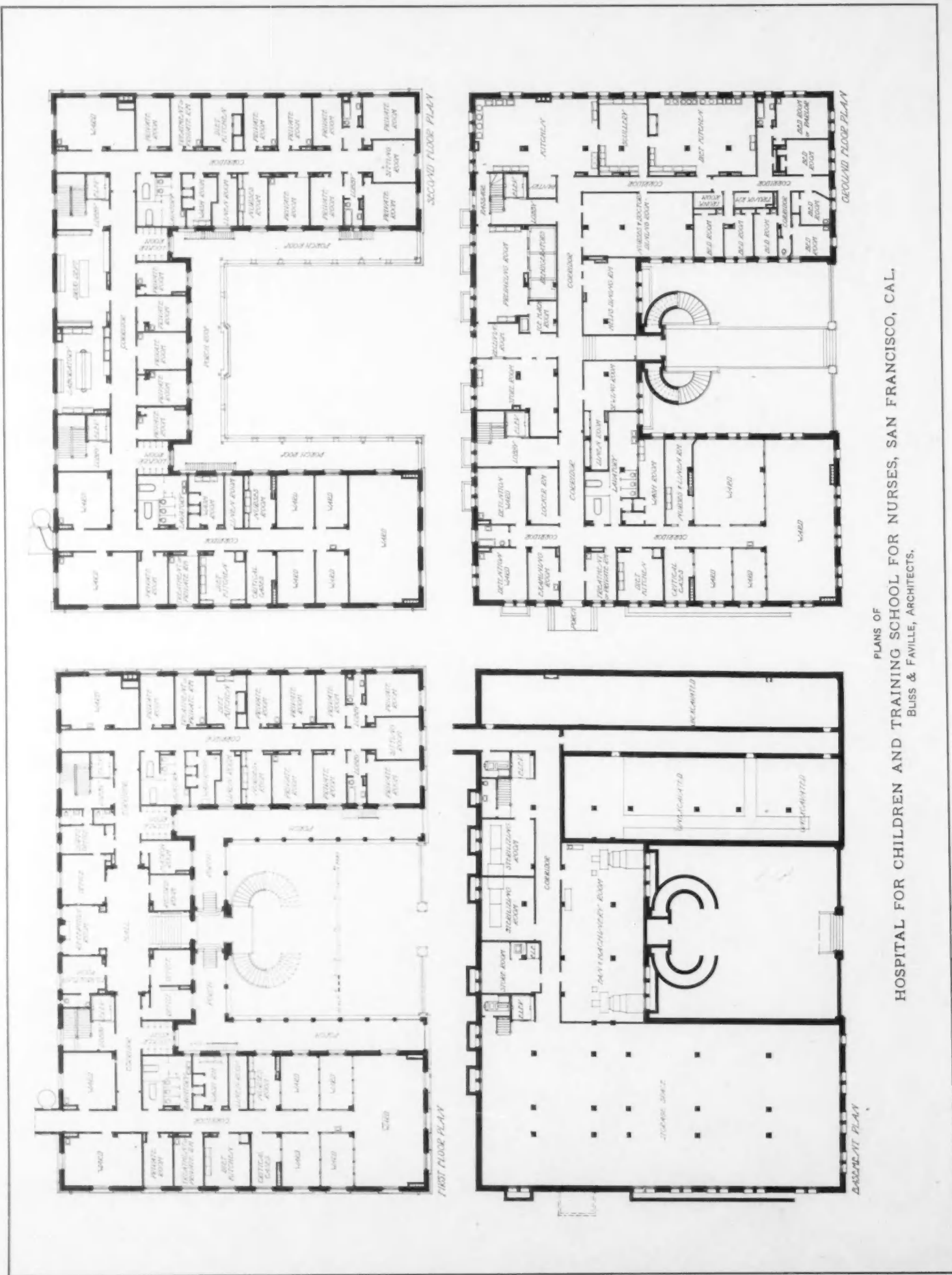
STAIRWAY IN STUDIO APARTMENTS.



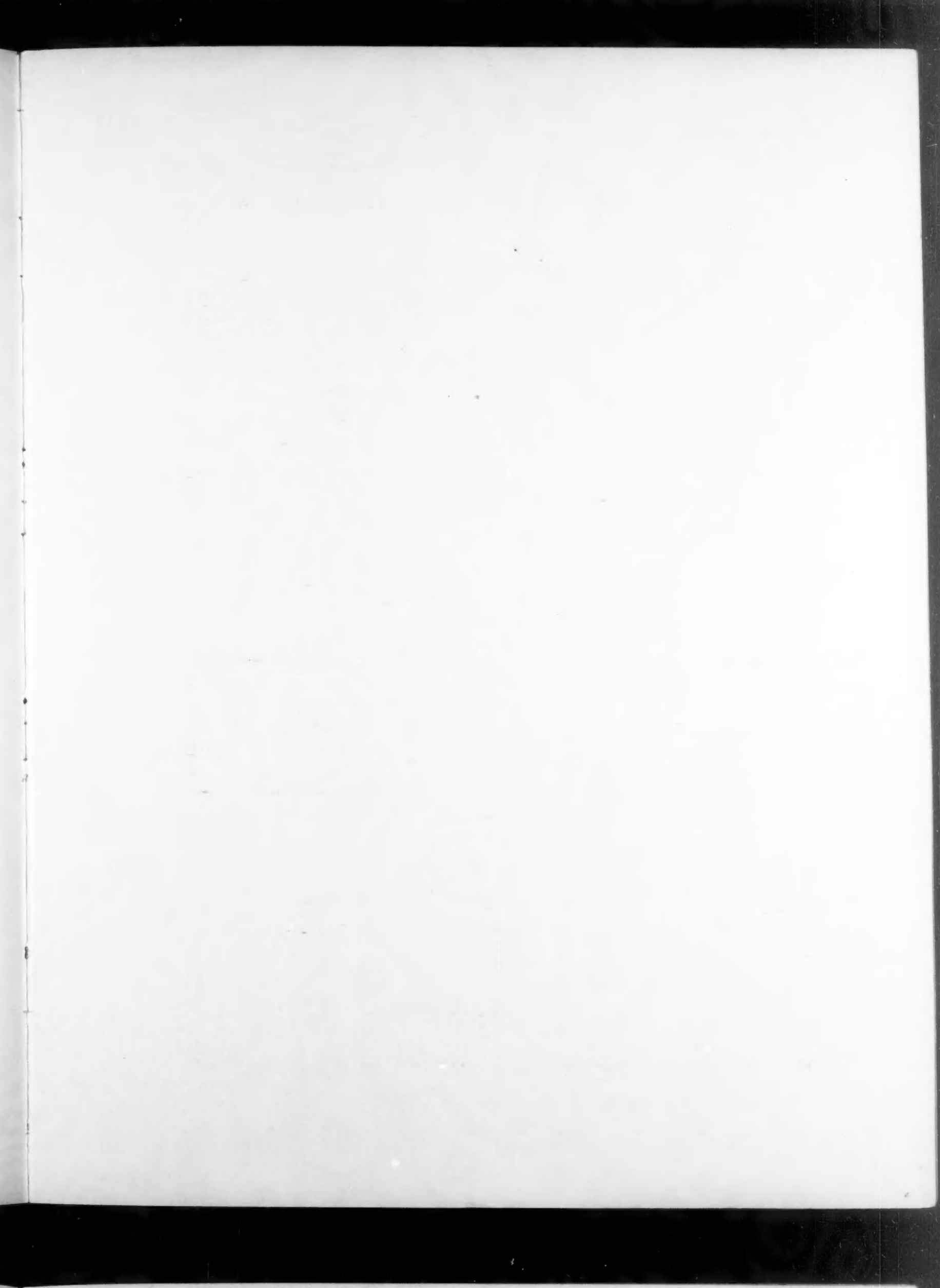


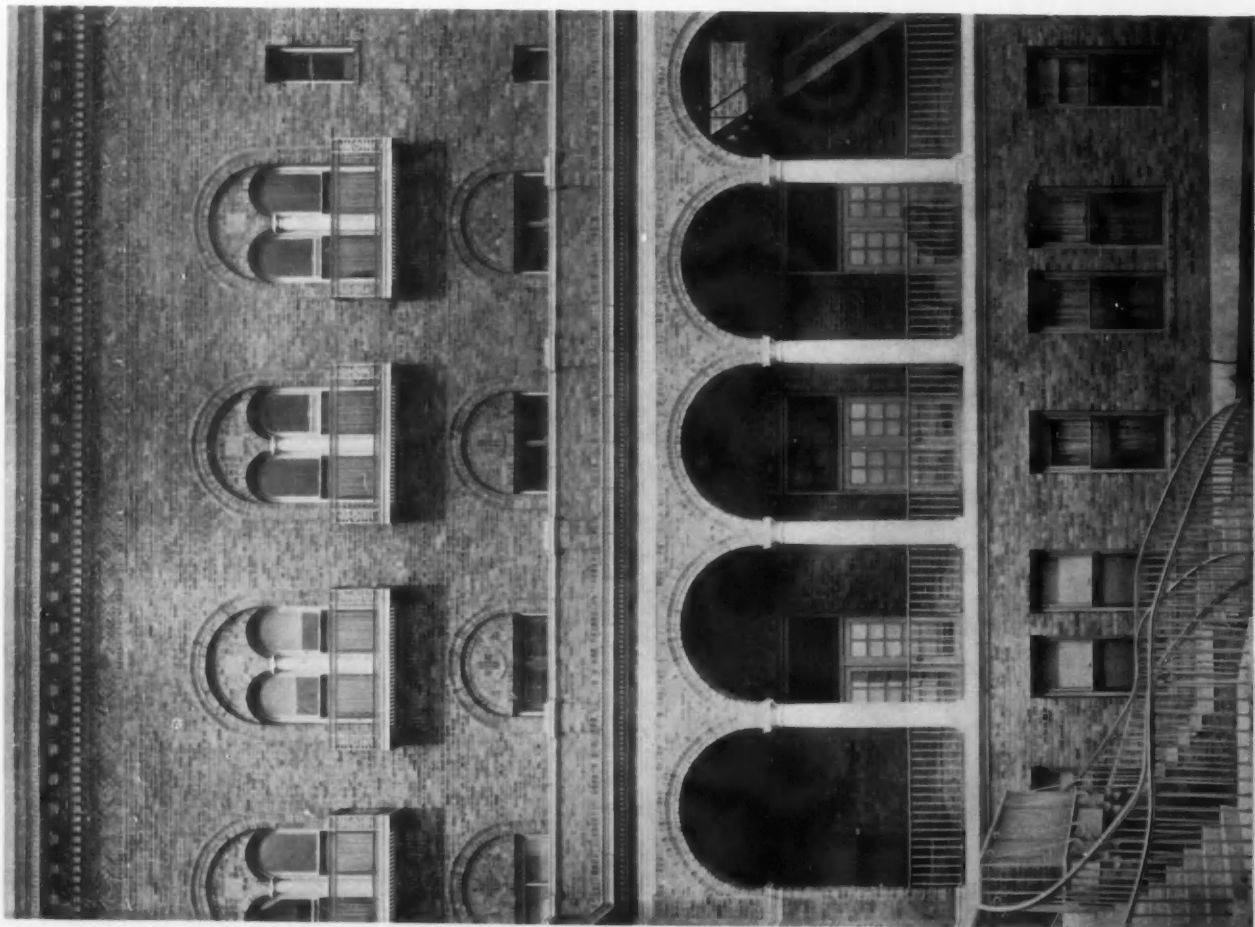
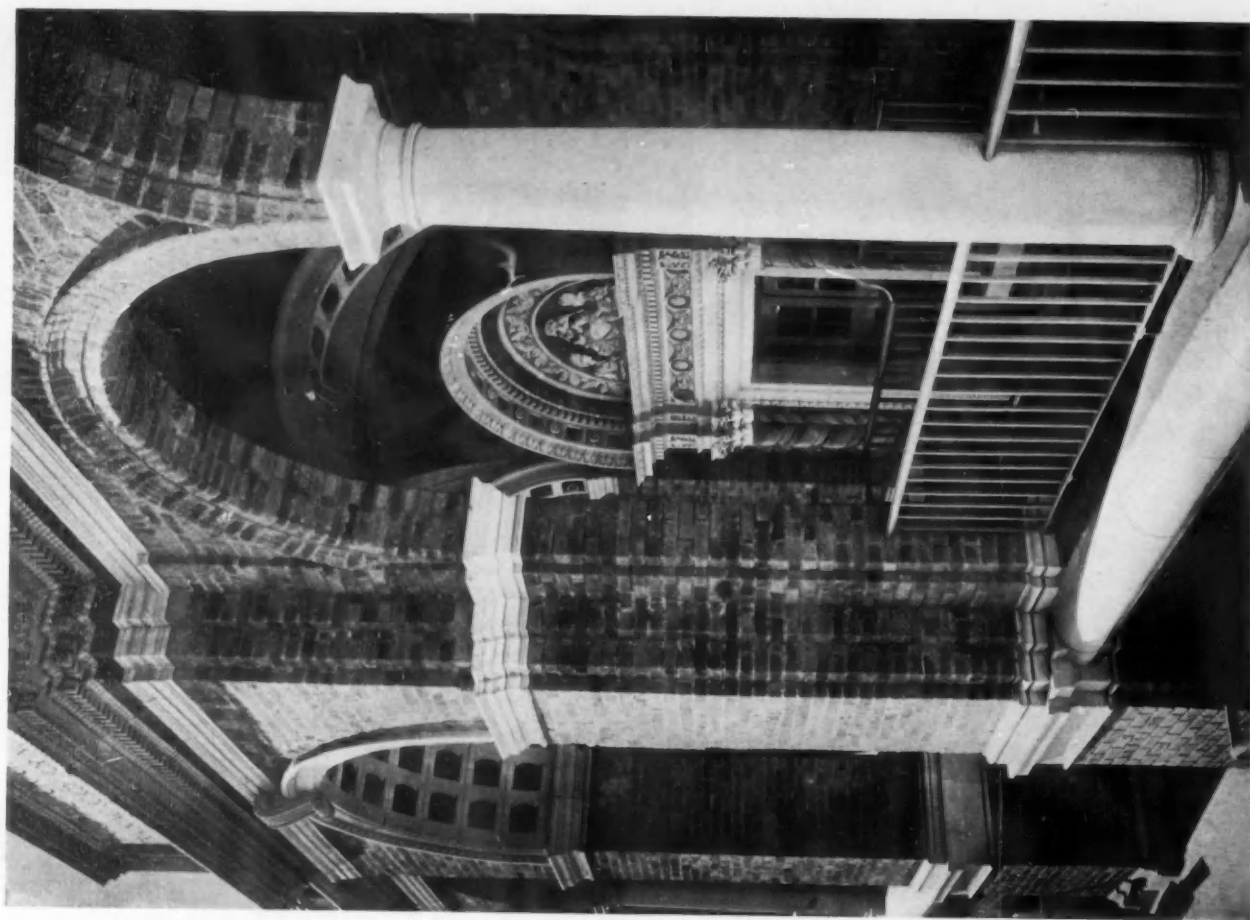
HOSPITAL FOR CHILDREN AND TRAINING SCHOOL FOR NURSES, SAN FRANCISCO, CAL.
BLISS & FAVILLE, ARCHITECTS.



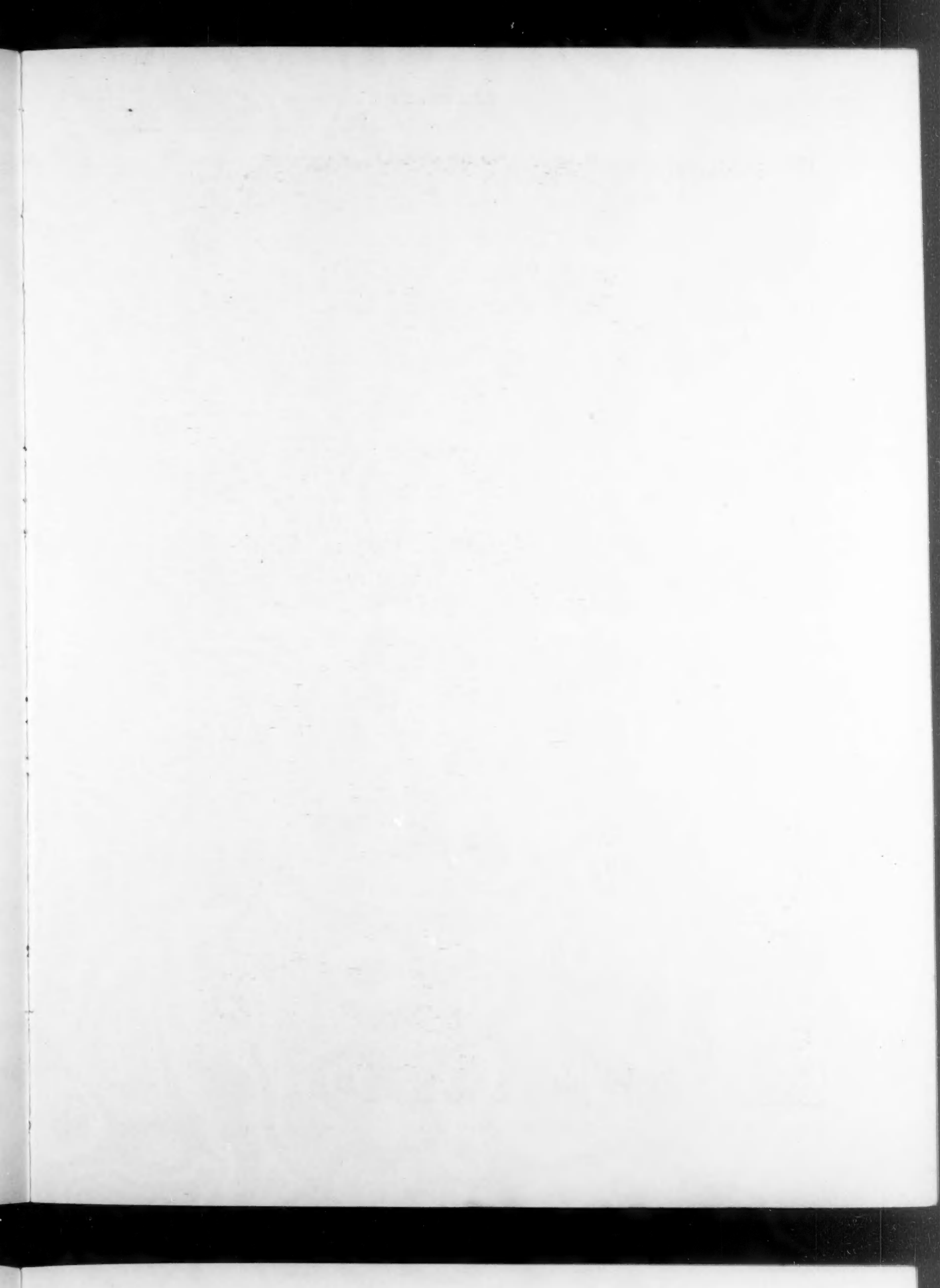


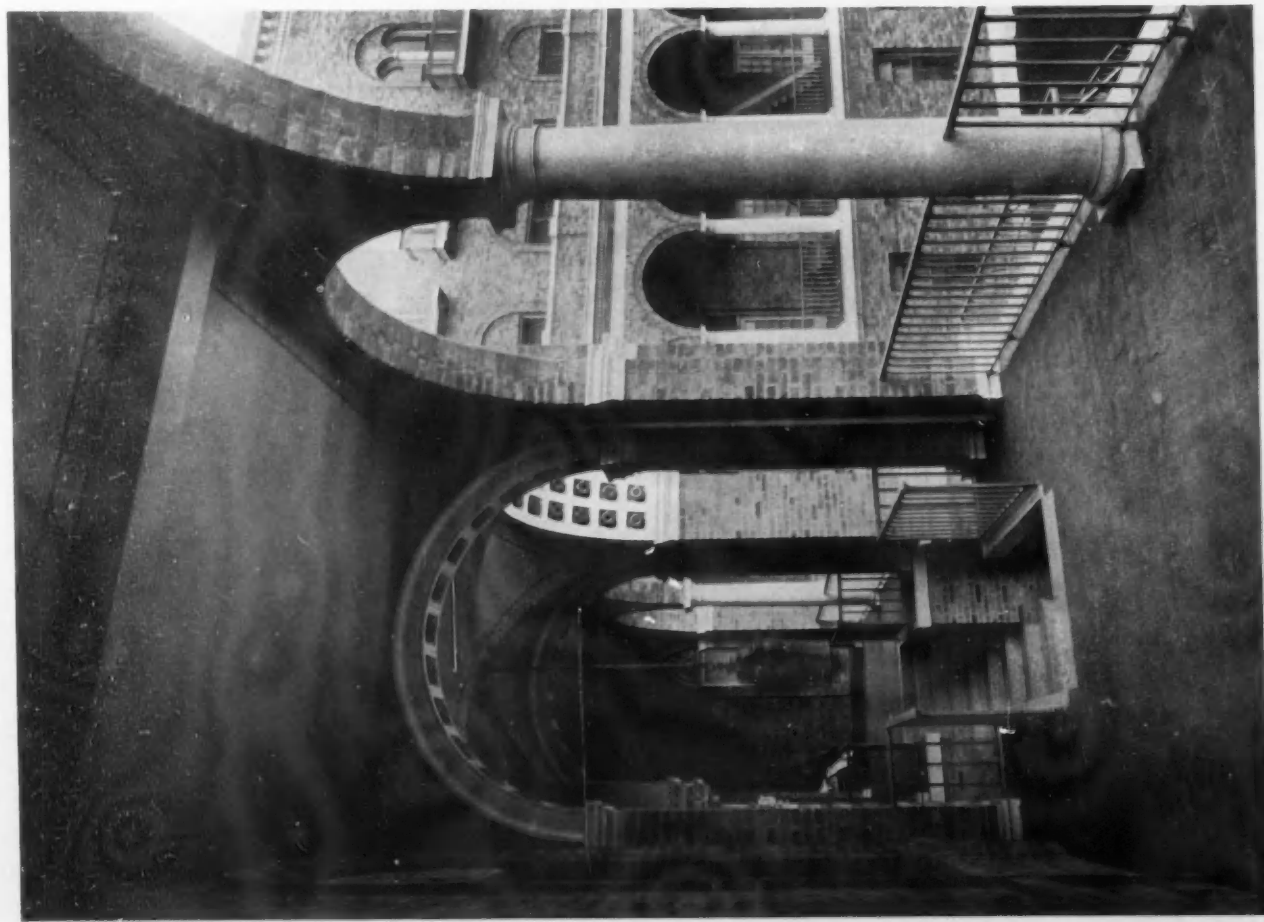
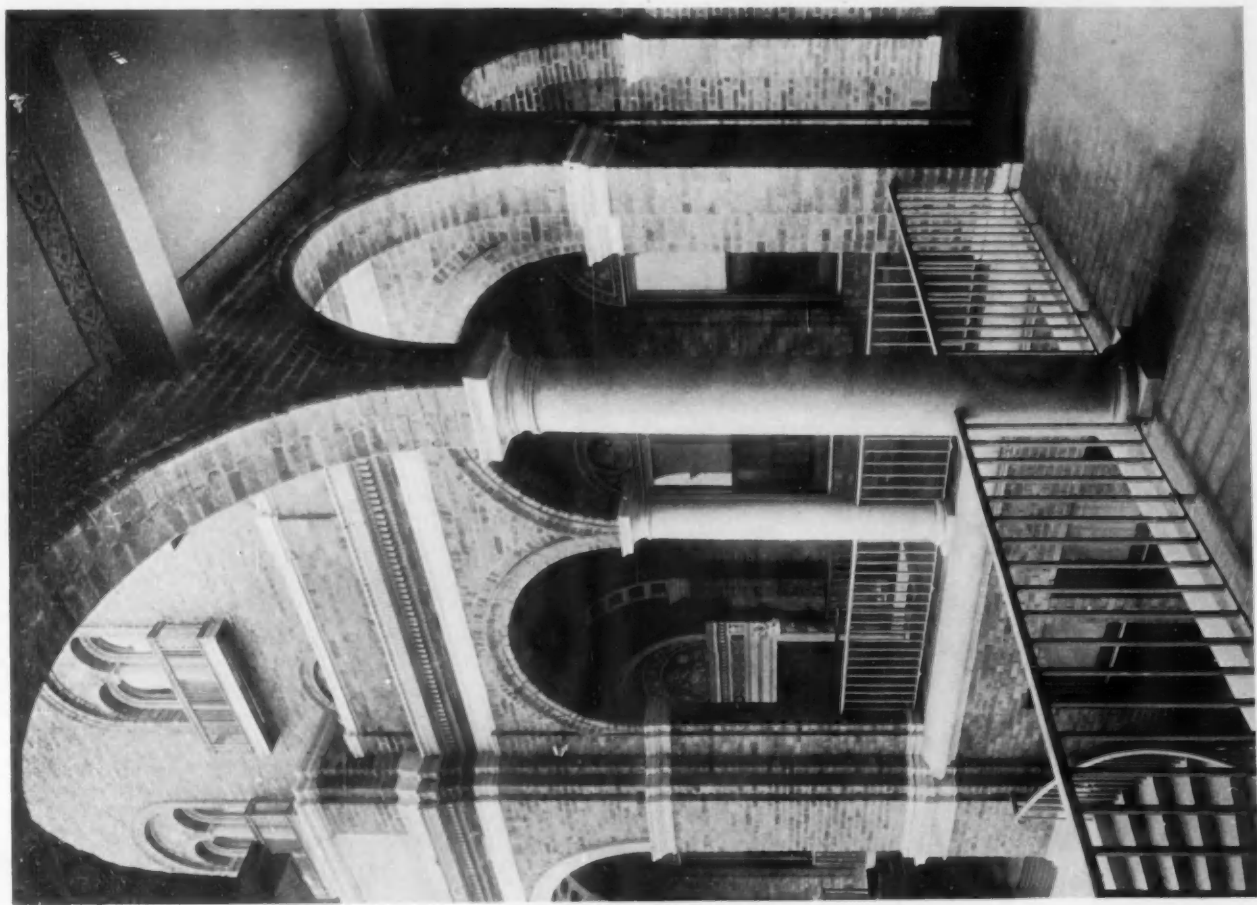
PLANS OF
HOSPITAL FOR CHILDREN AND TRAINING SCHOOL FOR NURSES, SAN FRANCISCO, CAL.
BUSS & FAVILLE, ARCHITECTS.



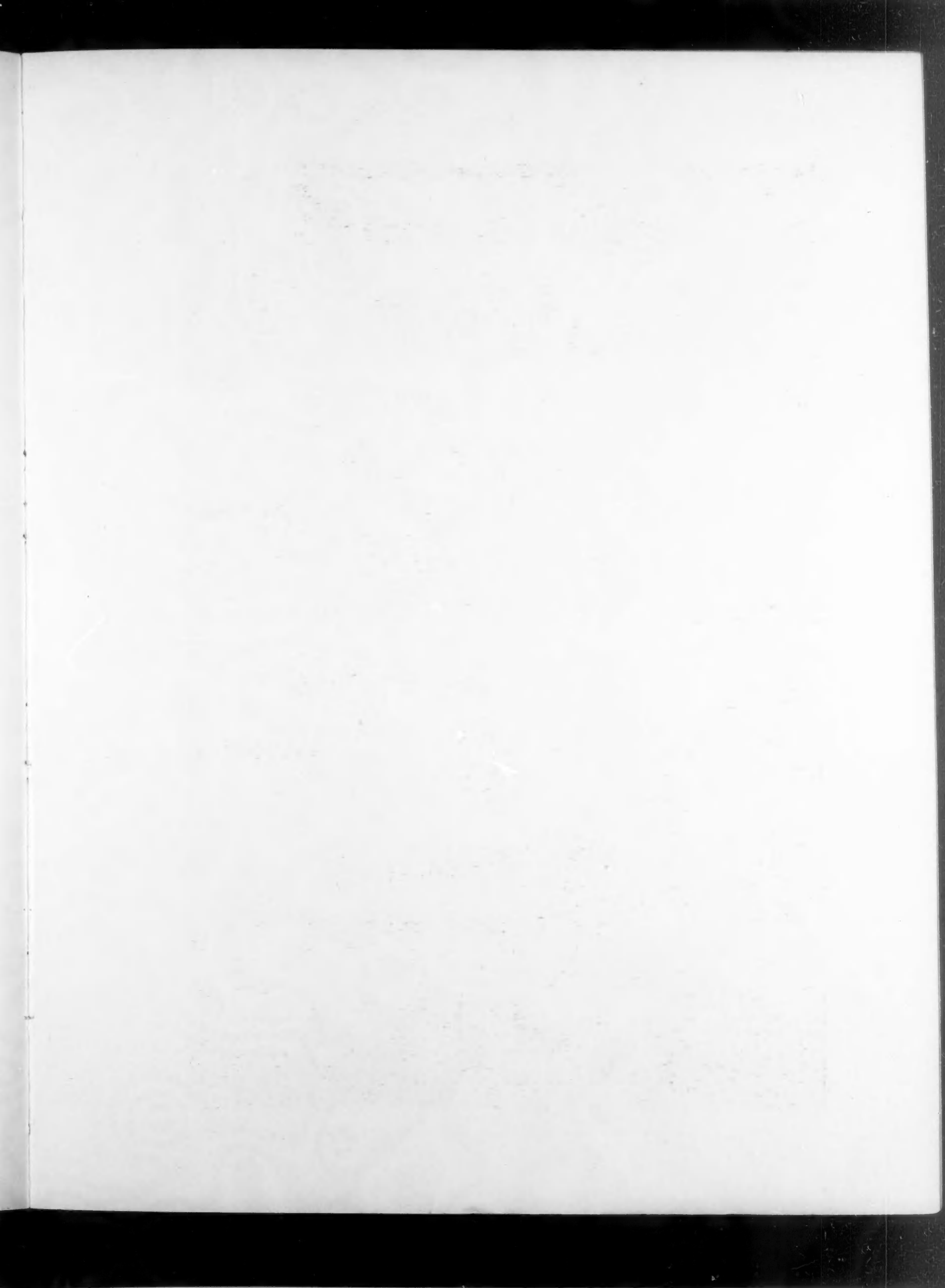


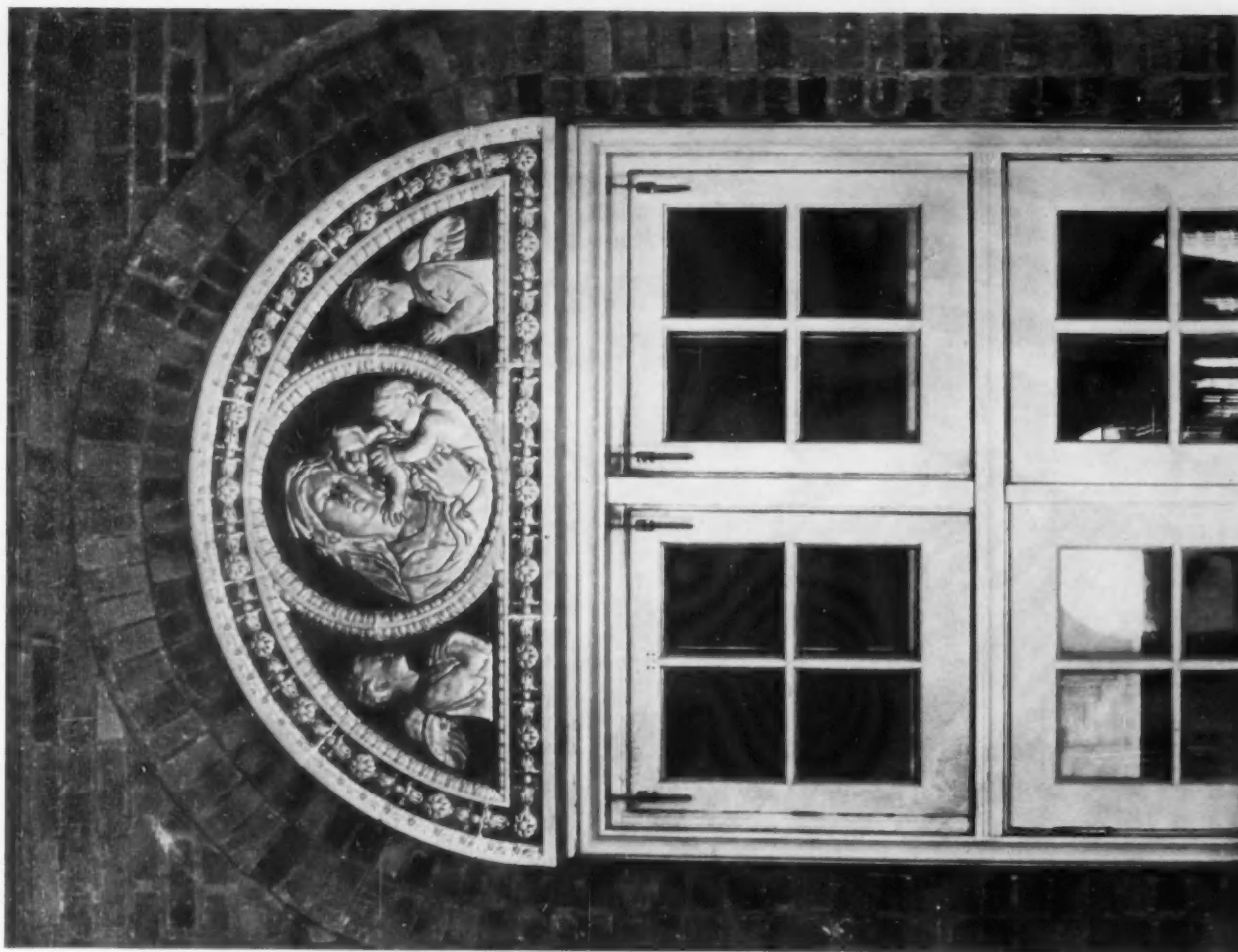
EXTERIOR DETAILS.
HOSPITAL FOR CHILDREN AND TRAINING SCHOOL FOR NURSES, SAN FRANCISCO, CAL.
BUSS & FAVILLE, ARCHITECTS.





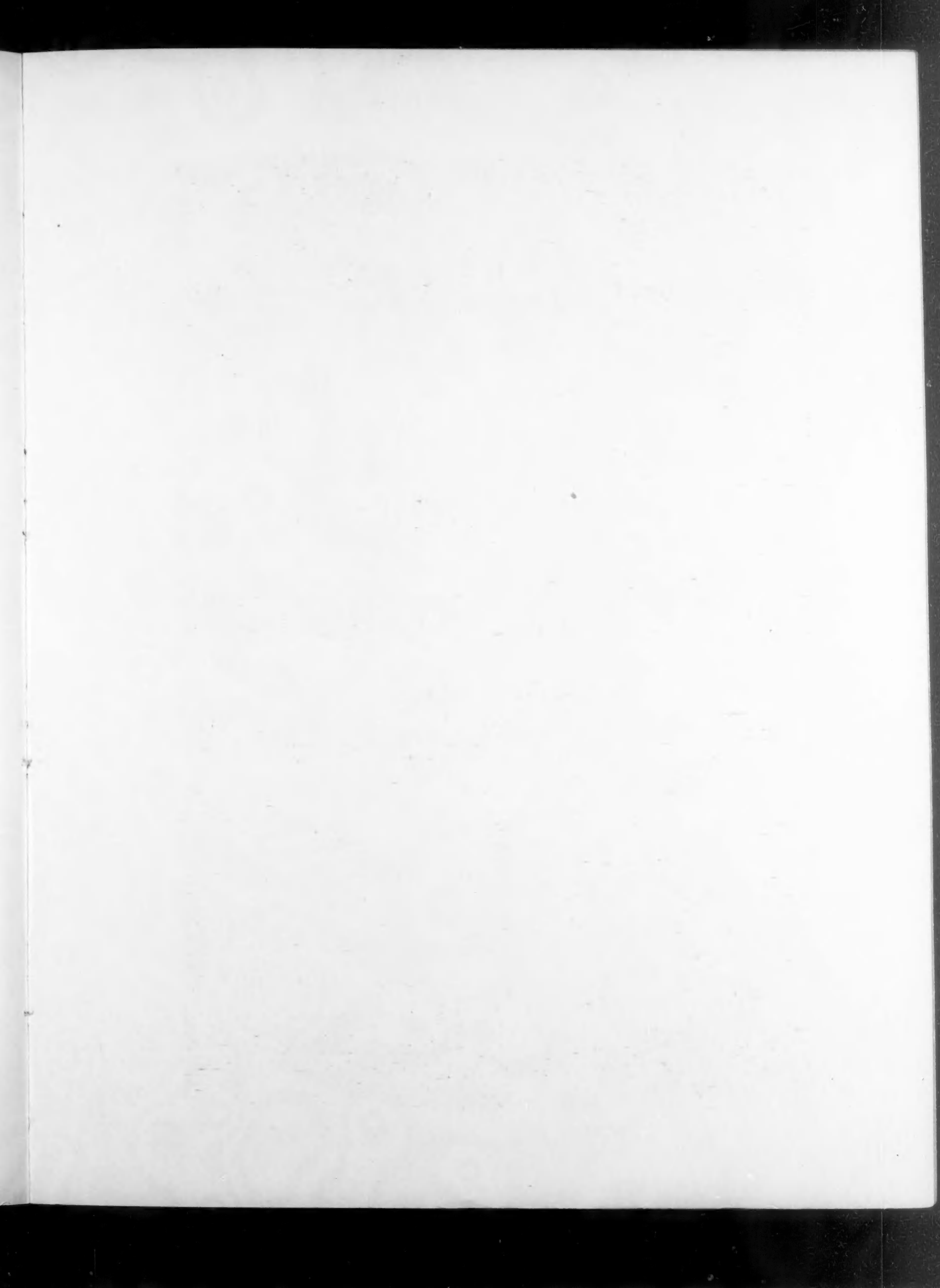
DETAILS OF PORCH
HOSPITAL FOR CHILDREN AND TRAINING SCHOOL FOR NURSES, SAN FRANCISCO, CAL.
BUSS & FAVILLE, ARCHITECTS.

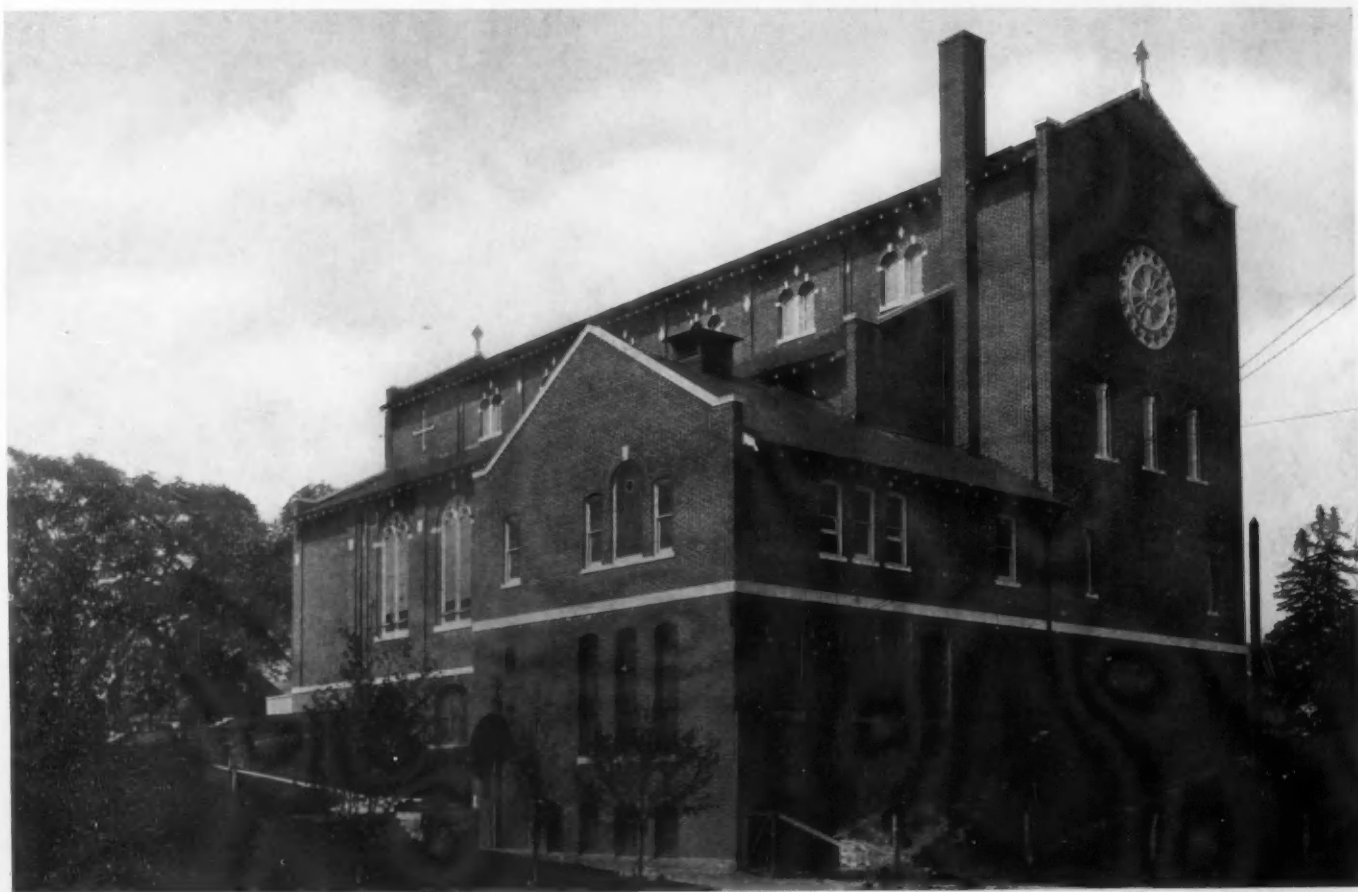
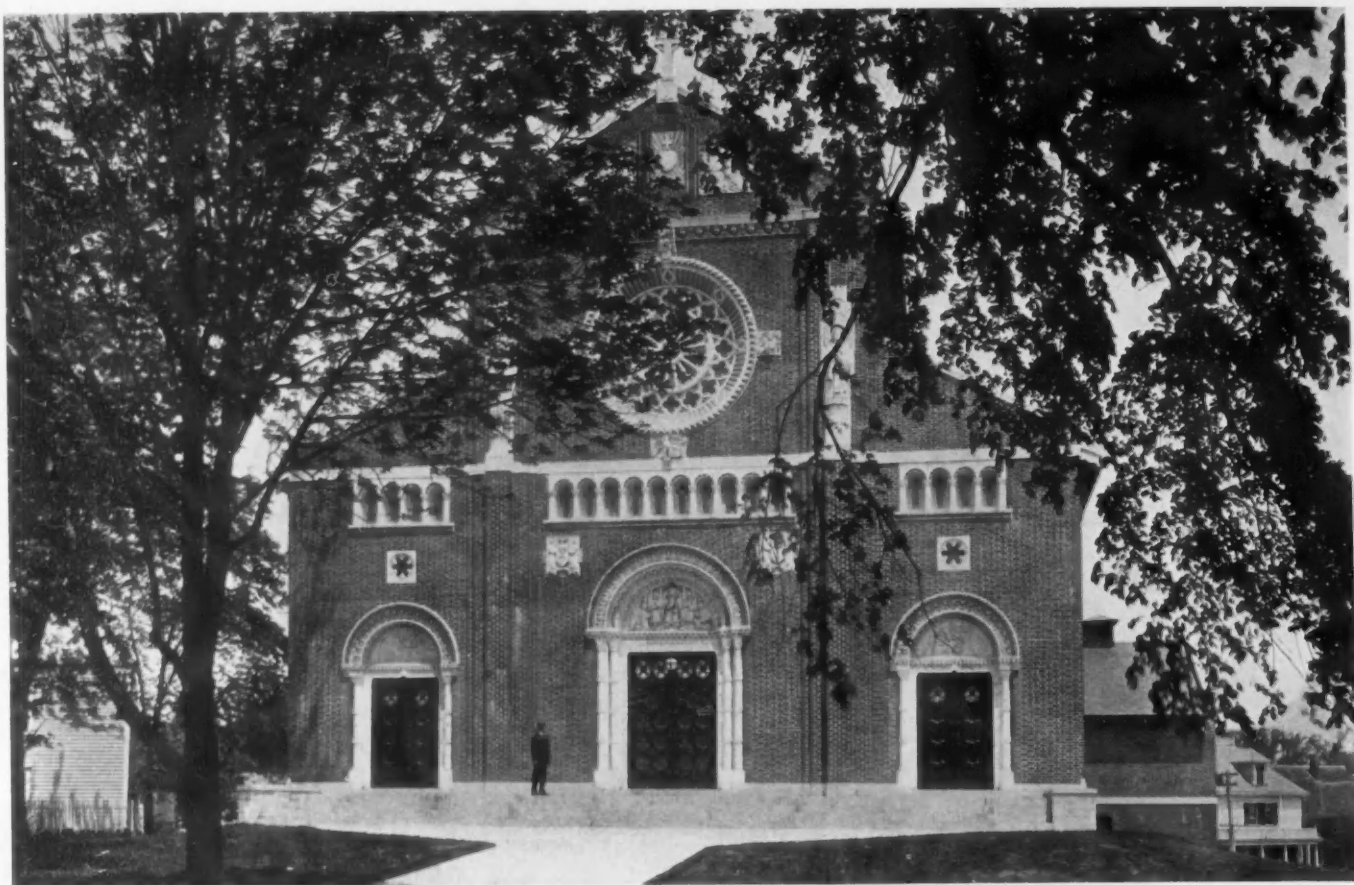




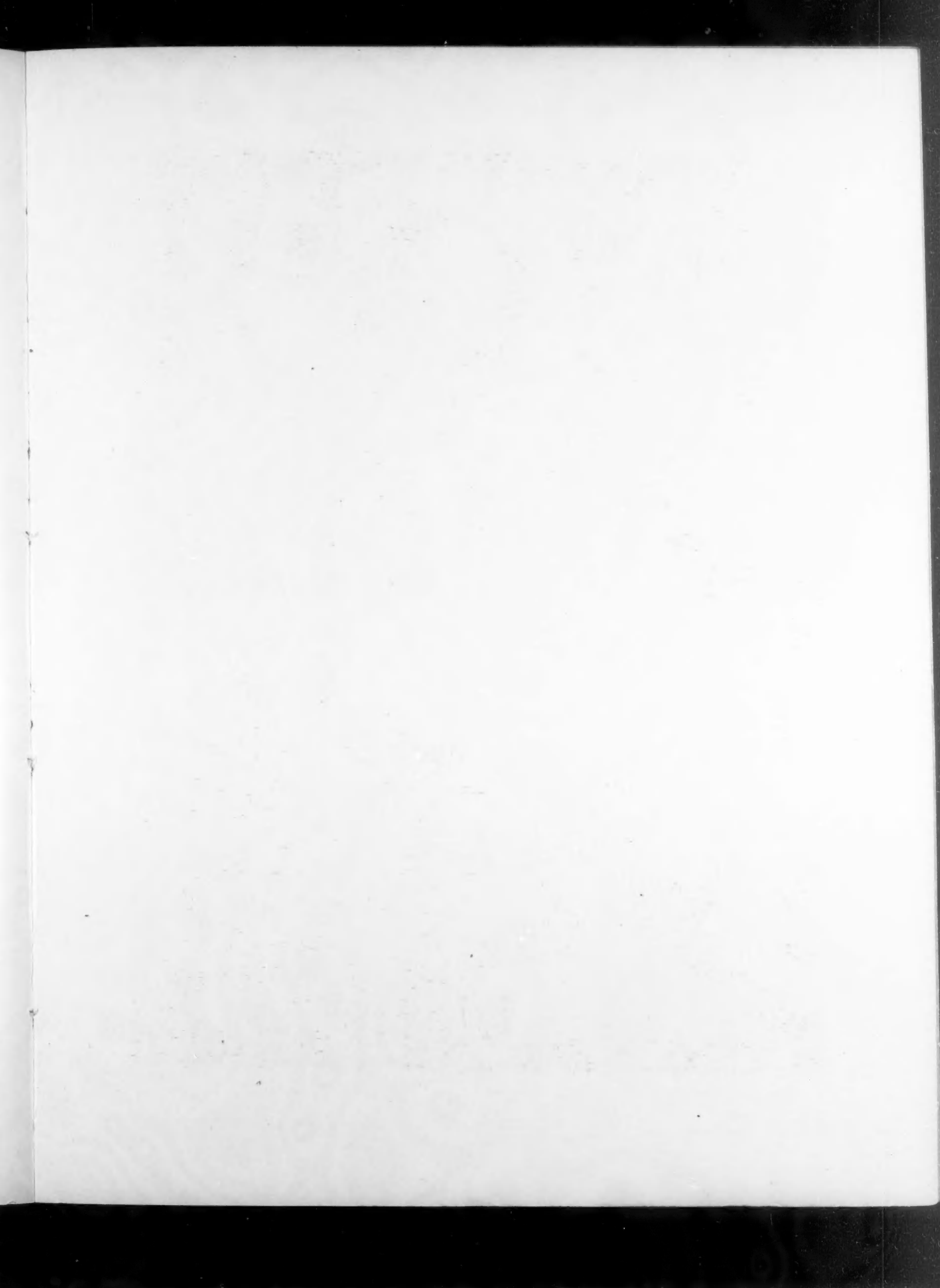
HOSPITAL FOR CHILDREN AND TRAINING SCHOOL FOR NURSES, SAN FRANCISCO, CAL.
BLISS & FAVILLE, ARCHITECTS.

DETAILS OF ENTRANCES.





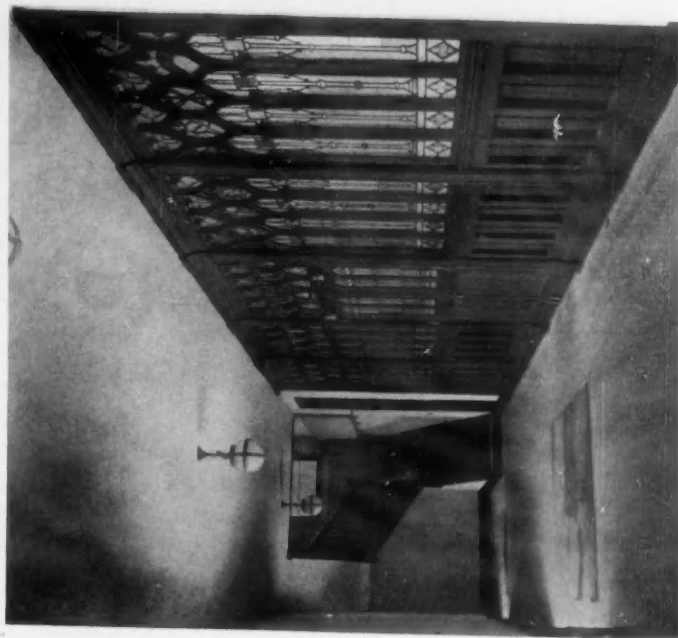
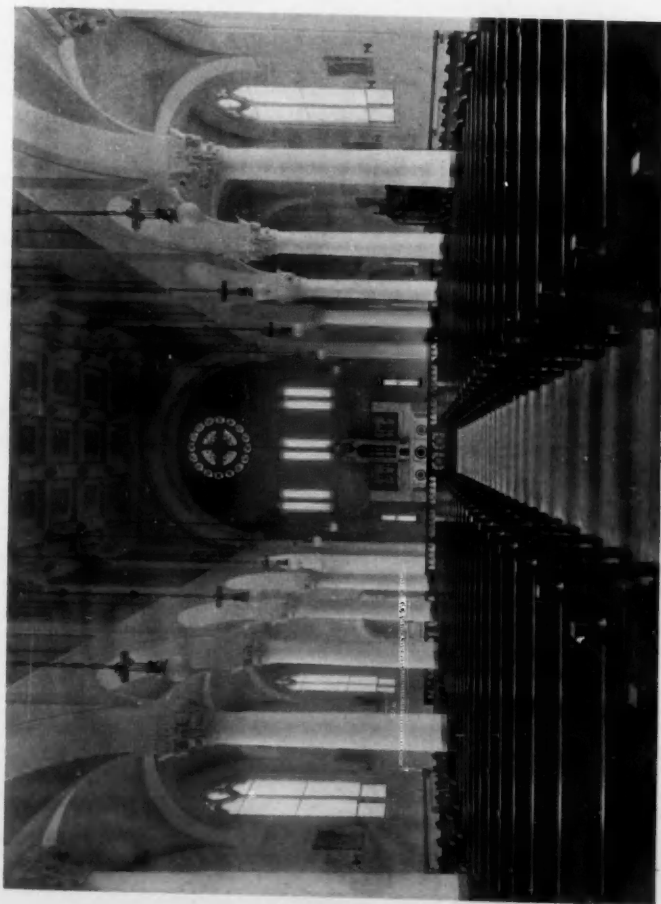
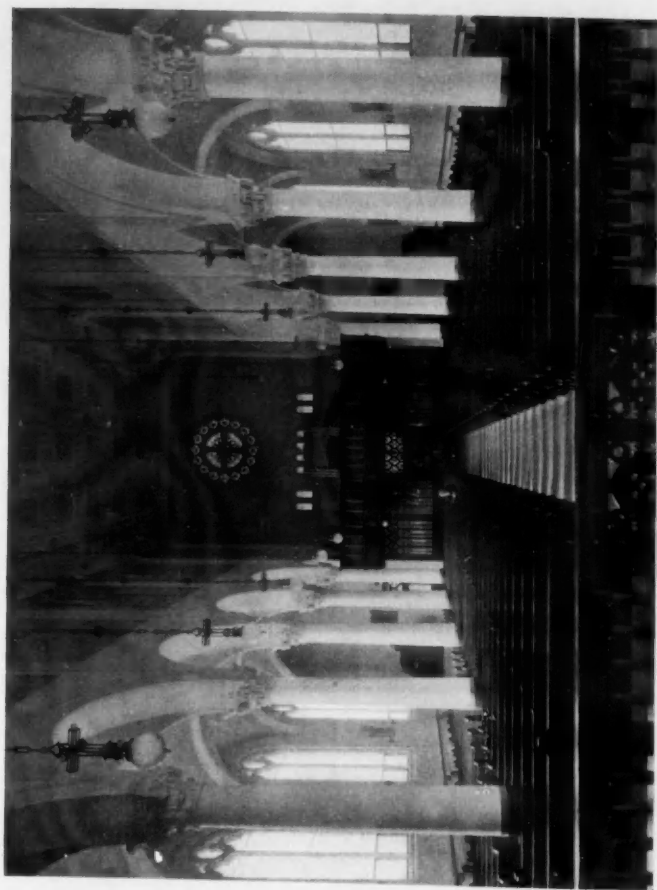
CHURCH OF THE SACRED HEART, TAUNTON, MASS.
MATTHEW SULLIVAN, ARCHITECT.



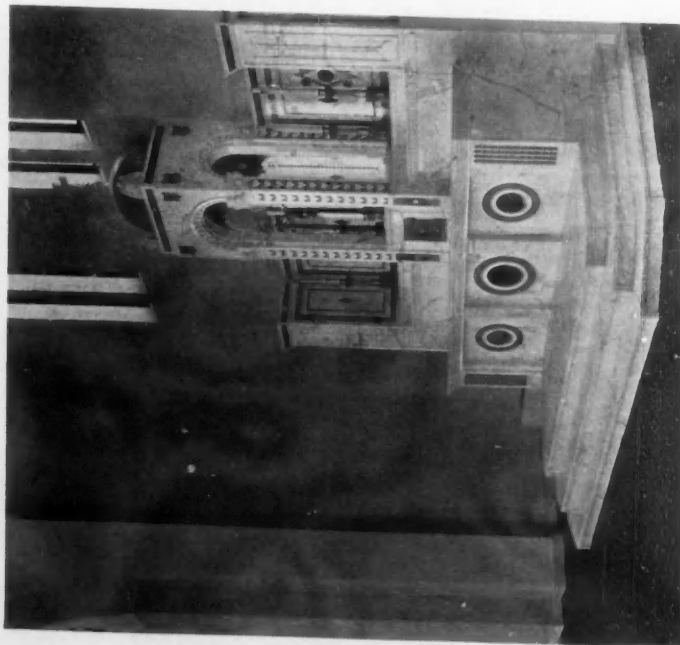
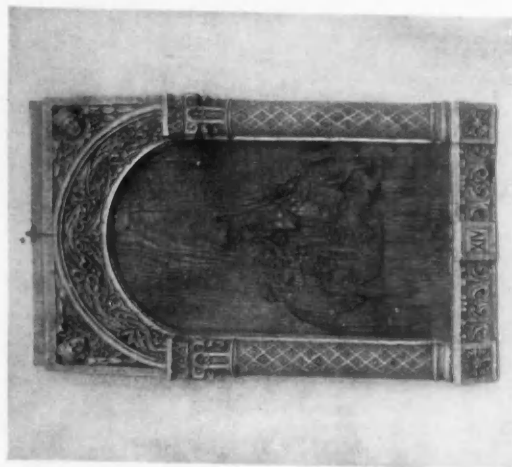


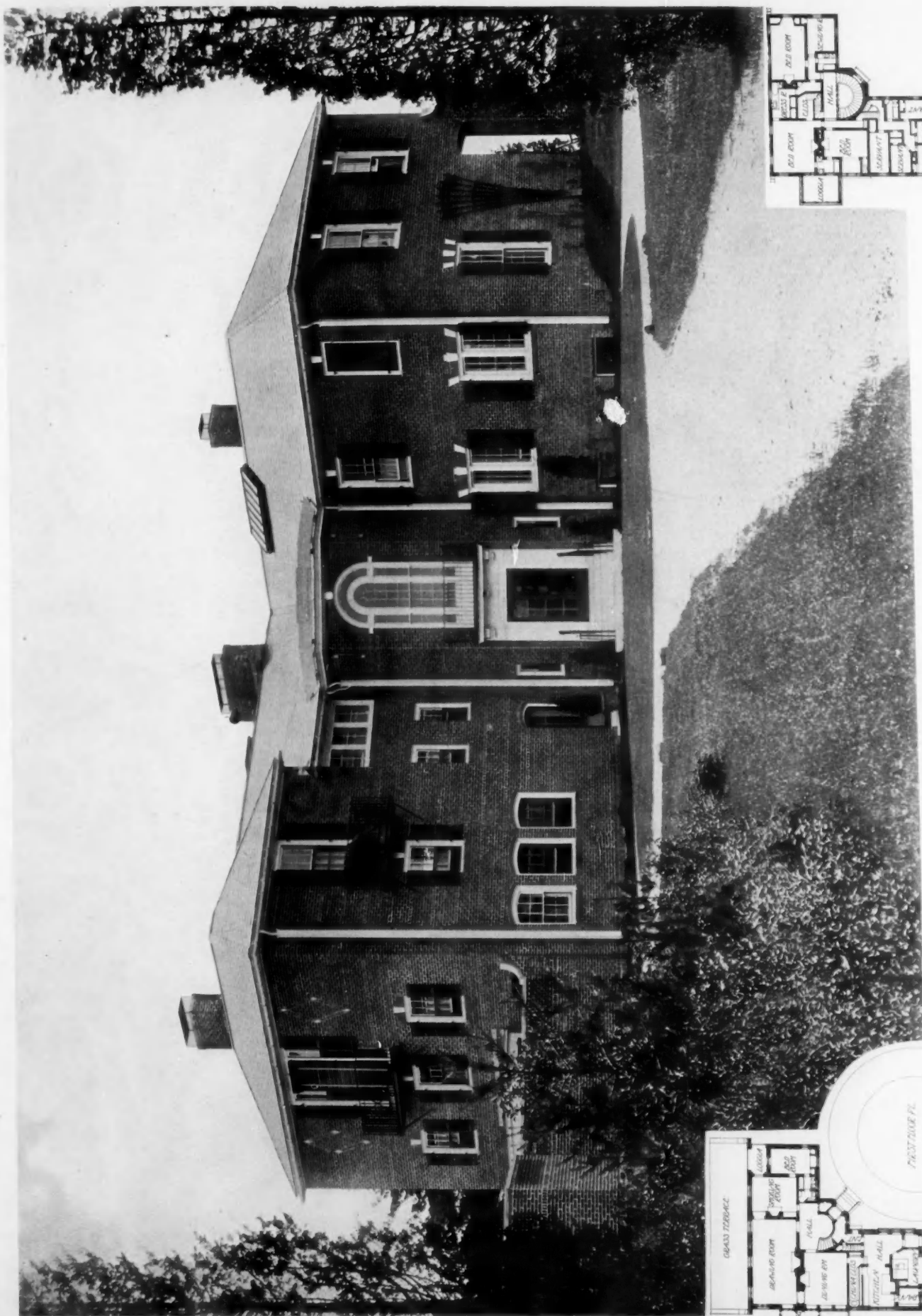


CHURCH OF THE SACRED HEART, TAUNTON, MASS.
MATTHEW SULLIVAN, ARCHITECT.

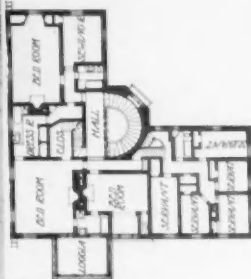


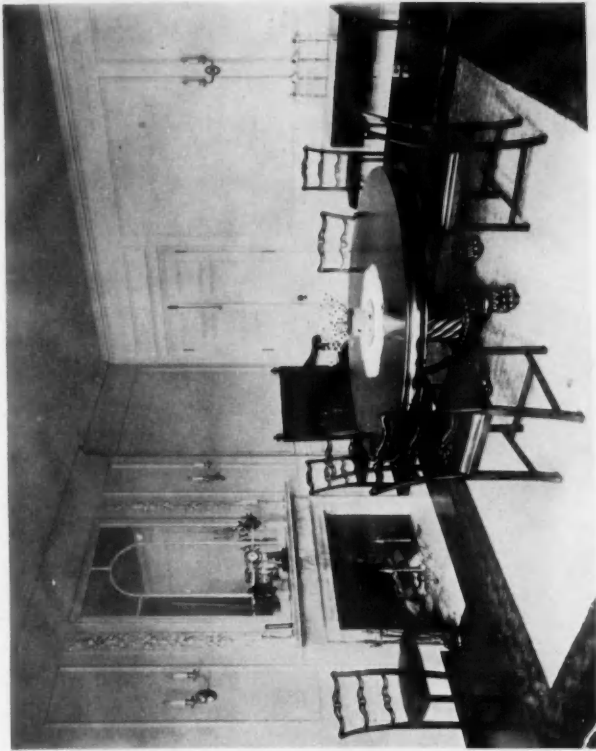
INTERIOR VIEWS AND MISCELLANEOUS DETAILS.
CHURCH OF THE SACRED HEART,
TAUNTON, MASS.
MATTHEW SULLIVAN, ARCHITECT.





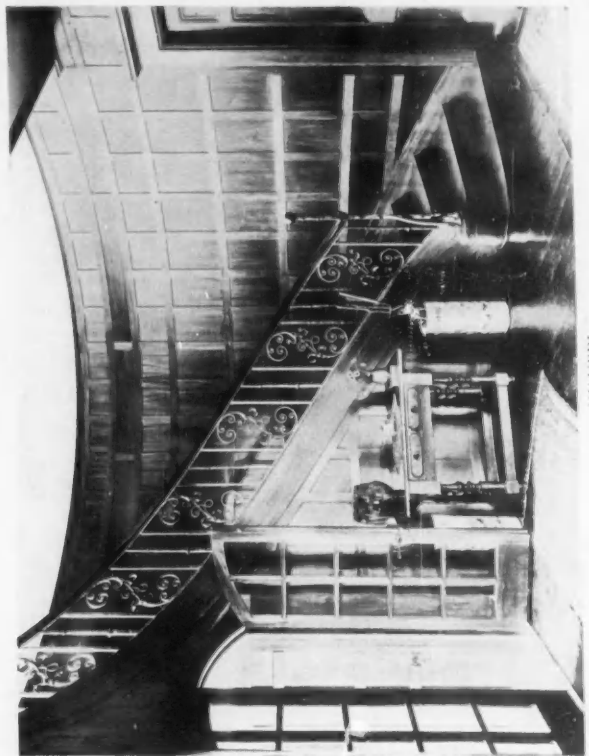
HOUSE AT SHERBORN, MASS.
BIGELOW & WADSWORTH, ARCHITECTS.



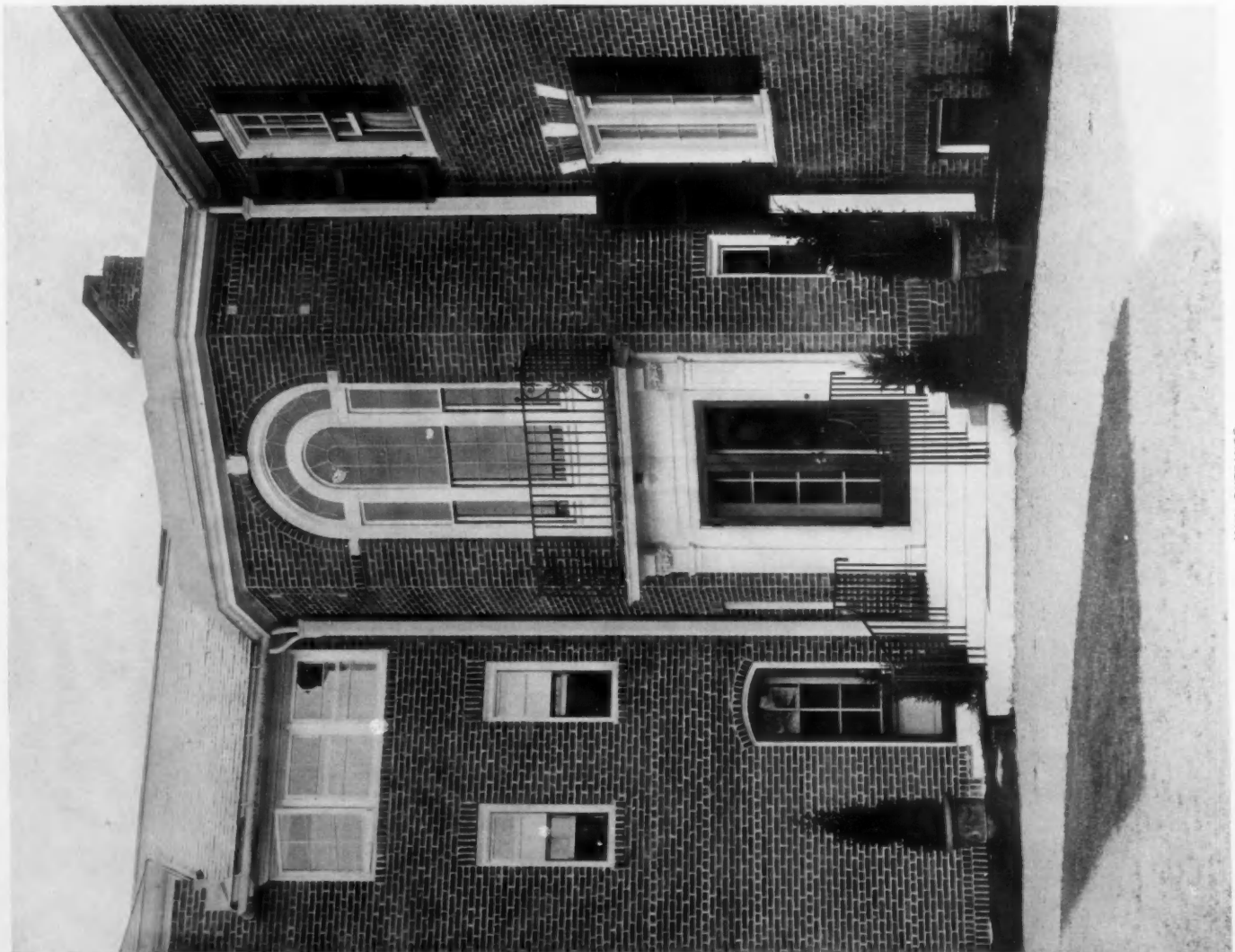


DINING ROOM.

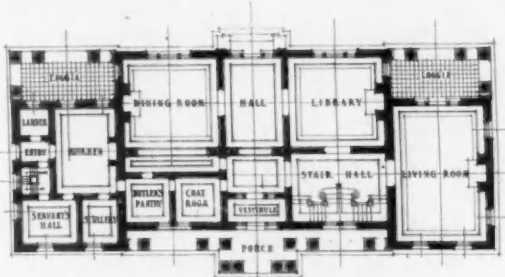
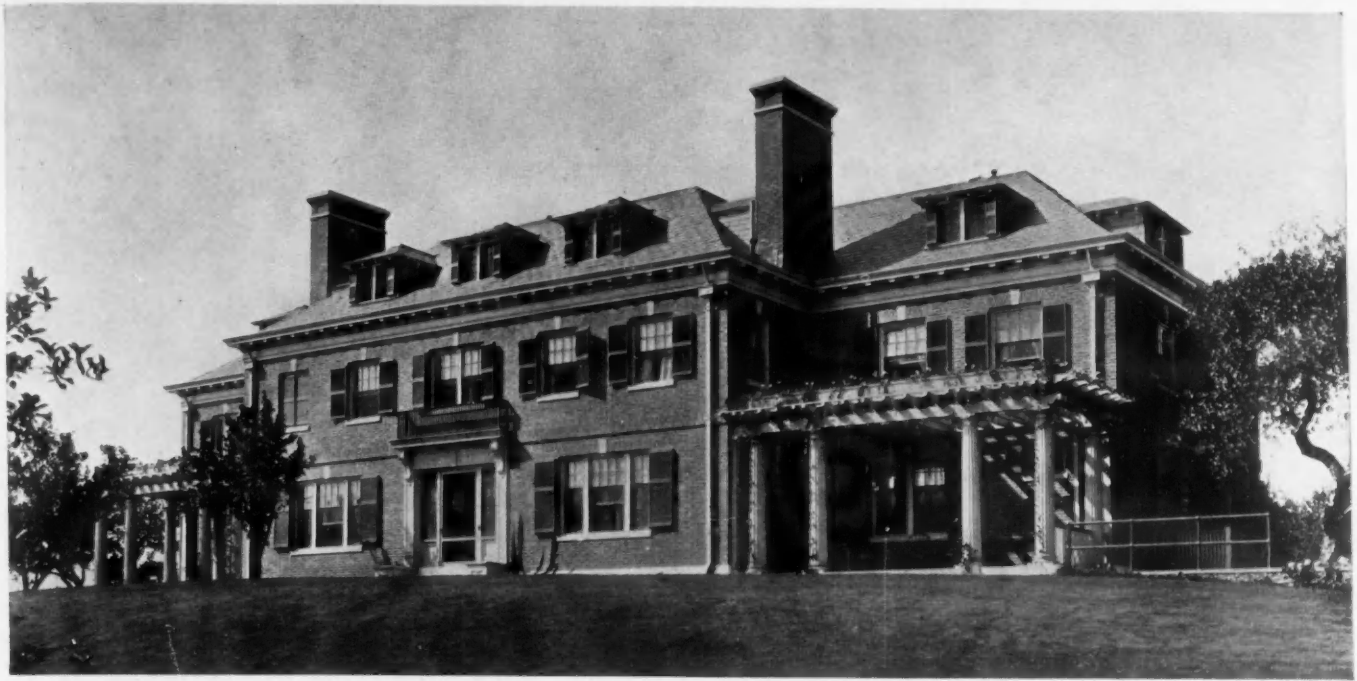
HOUSE AT SHERBORN, MASS.
BIGELOW & WADSWORTH, ARCHITECTS.



HALLWAY.

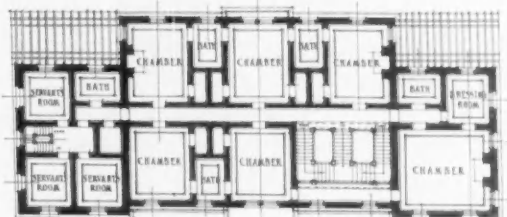


MAIN ENTRANCE.

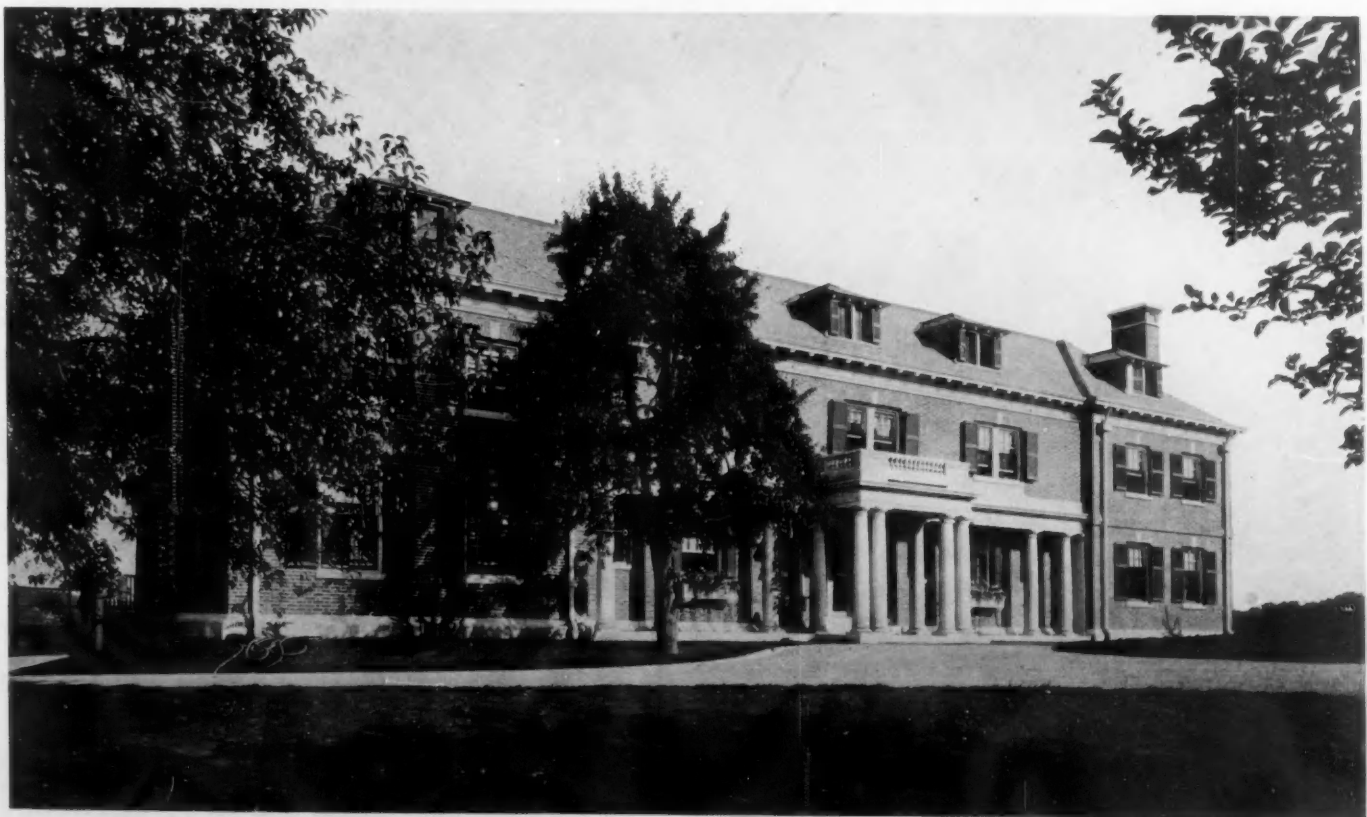


FIRST FLOOR PLAN

HOUSE
AT
CONCORD, MASS.
JAMES PURDON
ARCHITECT.



SECOND FLOOR PLAN



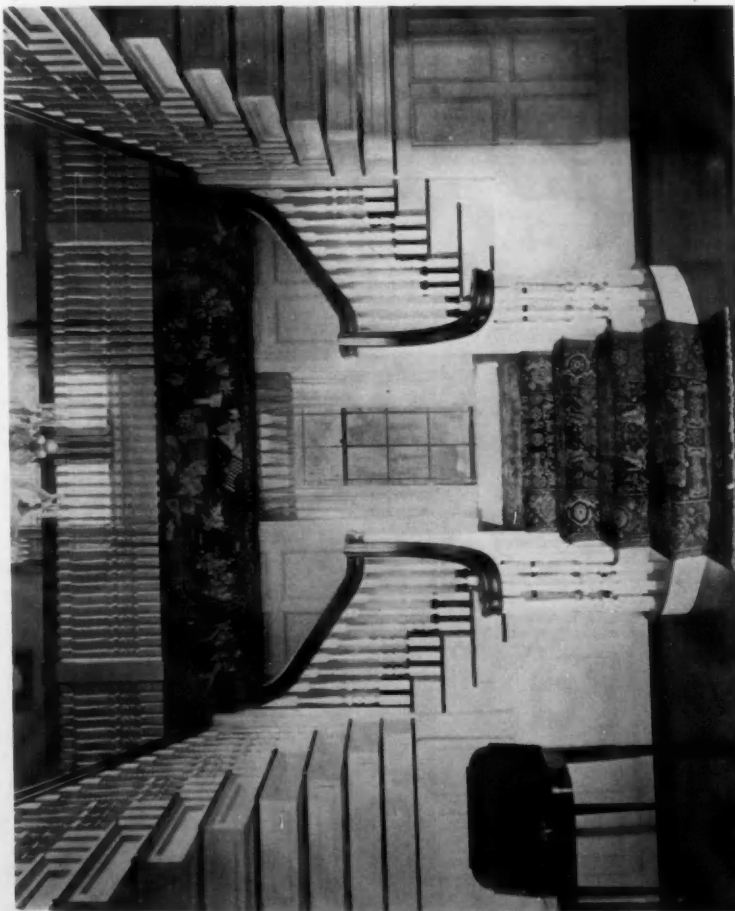


STAIR HALL.



DINING ROOM.

INTERIOR VIEWS.
HOUSE AT
CONCORD, MASS.
JAMES PURDON,
ARCHITECT.



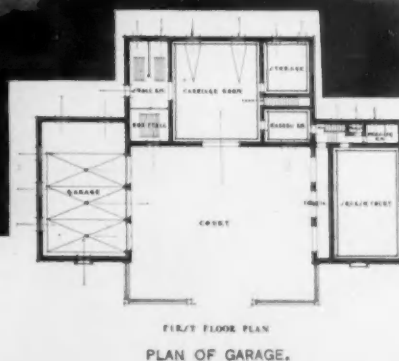
STAIR HALL.



LIVING ROOM.



HOUSE AND GARAGE, CONCORD, MASS.
JAMES PURDON, ARCHITECT.





FOUNTAIN OF THE ASTROLABE, LUXEMBOURG GARDENS, PARIS.

✓ Commemorative Monuments.—VI.

H. VAN BUREN MAGONIGLE.

ALL artists look forward with such hope as their individual optimism furnishes to a day when, in this country, everybody has become rich enough to care about art and especially the art of the street. Just opposite the Pont St. Michel in Paris the Boulevard St. Michel begins and is joined here by a little street running off to the right; a block of typical Parisian apartments lies between them with shops on the ground floor; in an American town the end of this building toward the bridge probably would not only not be truncated, but run to a point to get the last inch of rentable space, or, if truncated, would have been punched full of windows. But the French have a special faculty for seizing upon such an opportunity as this, and have made of it one of the most splendid and decorative points in Paris.

The Molière Fountain is another example on a more modest scale; he lived in the street to the right.

The Fontaine St. Sulpice in the square before the church of that name is not particularly beautiful, but is illustrated as an example of a free standing fountain in which architecture is predominant.

In the Triumph of the Republic, the pyramidal theory of composition is completely recognized. The lines of the steps follow the general form of the composition and carry the eye by insensible gradations from the sumptuous group to the plane of the basin about it. The two rostral columns of the Place du Trône, seen beyond, have their share in the ensemble, repeating the vertical line of the figure and forming a vigorous frame for the whole.

At the end of the long avenue, or rather, allée, that runs from the Palais du Luxembourg out toward the Observatory of Paris is the beautiful Fountain of the Astrolabe supported by figures representing the four continents. It gives scale, interest, and accent to a vista that would otherwise have been too long. The interminable lengths of American streets in nearly every city save Washington, unrelieved, unaccented, are characteristic of our national ignorance of civic art.

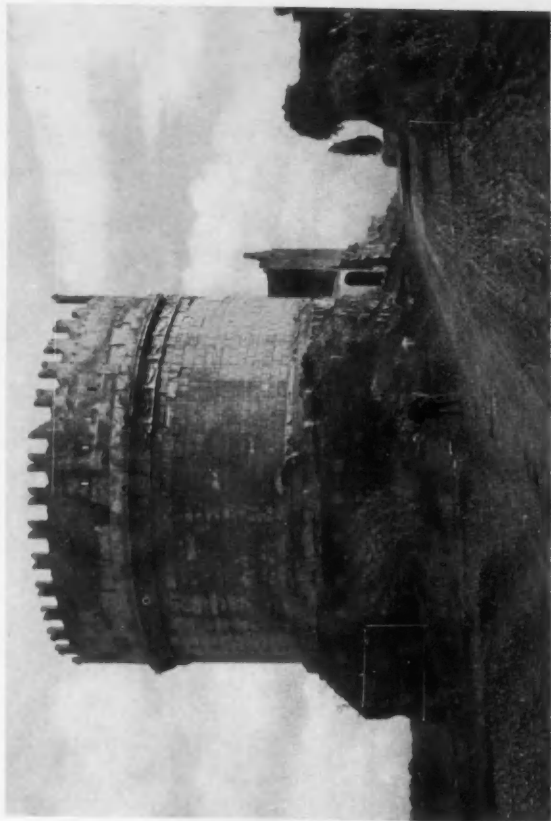
Leaping lightly from Paris to Pittsburgh we find the stele form used in a different way in the Magee Memorial Fountain by Augustus St. Gaudens and Henry Bacon.



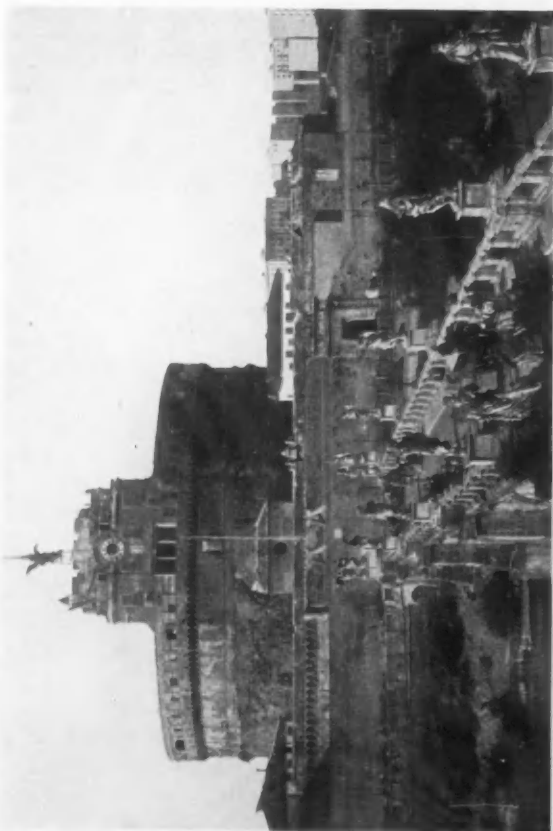
THE MOLIÈRE FOUNTAIN, PARIS.



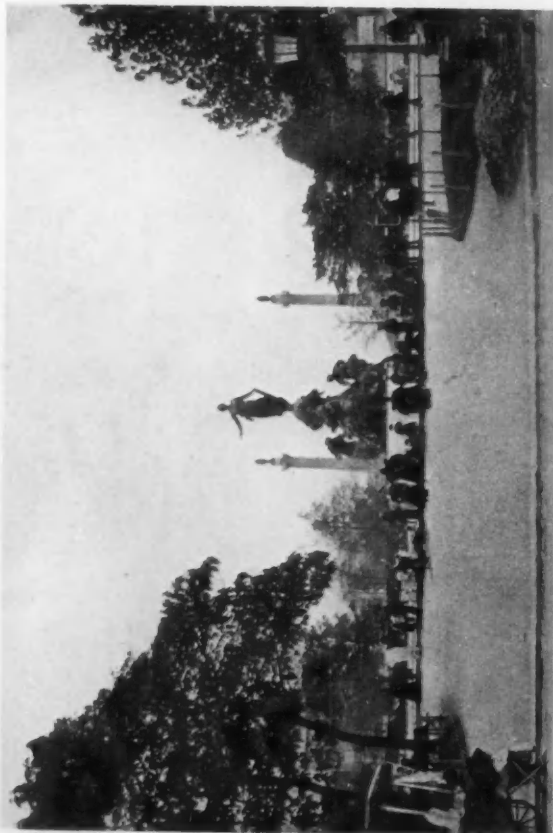
GRANT'S TOMB, NEW YORK CITY.



TOMB OF CAECILIA METELLA, ROME.



CASTELLO S. ANGELO, ROME.



TRIUMPH OF THE REPUBLIC, PARIS.

COMMEMORATIVE MONUMENTS.



FONTAINE ST. SULPICE, PARIS.



MAGEE MEMORIAL, PITTSBURGH.



FOUNTAIN TO THE GREAT GOD PAN, COLUMBIA UNIVERSITY, NEW YORK CITY.

COMMEMORATIVE MONUMENTS.

I find the Great God Pan in the grounds of Columbia University in New York delightful; to lie all day in the sun and tootle on a reed pipe and listen to the trickling water seems an enviable occupation; the sculpture is by George Grey Barnard and the setting by McKim, Mead & White.

The Tomb of Cæcilia Metella on the Appian Way outside the gates of Rome is one of the few remaining on that Street of Tombs

and doubtless owes its preservation, like so many ancient Roman remains, to its use as a fortified residence for the Roman nobility; the Ghibelline battlements of brick that crown the upper part are a plain indication of this use. We find the origin of this circular form of tomb in the mounds of earth that by an old custom were heaped above the bodies of those slain in battle; as the base of these mounds became gradually eroded by the weather it became usual to build a low circular wall around it for protection. This primitive form of sepulchral monument was developed



THE SOLDIERS' AND SAILORS' MONUMENT, NEW YORK CITY.

in the course of years into such structures as this and the tomb of the Emperor Hadrian, now the Castello S. Angelo, which has suffered many changes since Roman times; undoubtedly it had a conical roof, either of stone or of earth terraced to the summit and perhaps planted with cypresses. Grant's Tomb in New York, by Mr. John H. Duncan, is a modern version of the idea in stone.

The McKinley Memorial, Canton, Ohio, by the writer, has been illustrated and described so often that it is unnecessary to do more than give it here as an example of a large circular domed tomb.

The Soldiers' and Sailors' Monument on Riverside Drive, New York, the work of Messrs. Stoughton & Stoughton and Paul Dubois, is an excellent mass treated in a robust style; it is a very unusual form for a monument and is really another development of the phallic emblem, like the dolmens of Brittany, the obelisks of Egypt, and the votive columns and pylons of later times.



THE MCKINLEY MONUMENT, CANTON, OHIO.

The Emerson Hotel, Baltimore, Md.

JOS. EVANS SPERRY, ARCHITECT.

BALTIMORE'S newest and most modern hotel, following the traditional design of this type of building, raises its head with majestic mien, and towers above its immediate neighbors as a landmark by day and a beacon by night.

The façades of the building are divided vertically into three parts, consisting of a base, with a shaft above, crowned with the cornice and high roof. The base is of pink granite, extending through the principal and mezzanine stories, and though it contains many broad openings, yet it suggests stability and strength, and securely supports the shaft of brick rising above, which is pierced by many windows, deeply recessed for shadow effect. No attempt has been made to embellish these openings, the lintels of which are of brick; the sills are of architectural terra cotta, having only sufficient projection to allow for a drip. The designer, however, arranged for the proper spacing of the windows, with the resulting broad surfaces of brick texture between, to produce a harmonious color balance. The windows in the simplicity of their treatment seem to apologize for their existence, only offering as an excuse for disturbing the color scheme of the brickwork the most practical one of admitting light to the rooms of the interior, the arrangement of these rooms being suggested by the window spacing.

The bricks selected for the exterior are twelve inches long but of standard thickness and width, and are of a light buff cream, slightly irregular in shade, but with an underlying tinge of green so delicate in tone as to be hardly perceived.

The principal façades are partly relieved at the fifth floor by balconies of architectural terra cotta of color and effect to match the pink granite of the base. These balconies are supported upon the backs of four griffin brackets and the rail and coping is surmounted by four seated lions supporting shields; the lion being a tradi-

tional emblem of the owner. From flagpoles projecting over these balconies float side, by side, Old Glory and the beautiful flag of Maryland, the red and white and orange and black adding a brilliant touch of color well placed.

Above the brick shaft a projecting sill course, on a line with the sills of the upper windows, begins the frieze which is surmounted by the broad overhanging cornice enriched with much detail, and all executed in architectural terra cotta.

The machicolations of the cornice contain the beautiful shell ornament so successfully used during the Renaissance. The windows of this upper story carry up into these machicolations, necessitating a wider spacing of the corbels of the cornice at these points to admit them, but as these windows have flat heads they neglect the move-

ment suggested in the cornice, by not conforming to the wider machicolations which they enter.

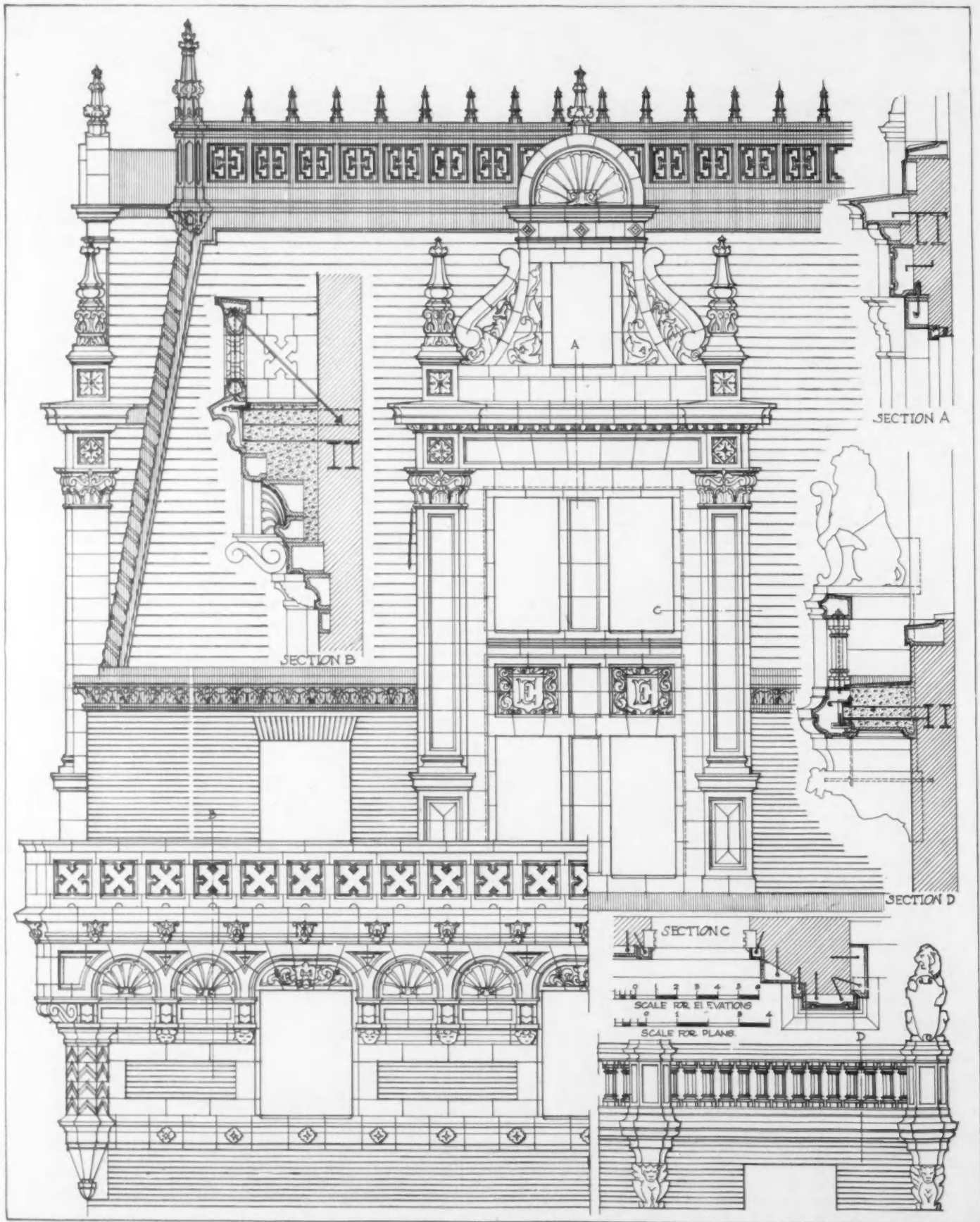
Surmounting the cornice is a low balustrade in terra cotta which offers a chance for ornamental treatment, and affords protection to the visitor to this gallery. Above the cornice rises a three-story mansard roof, covered with a bluish green slate. This great expanse is relieved by numerous openings plainly treated, but it is



MAIN LOBBY.

especially embellished by large central dormers, flanked on each side with a smaller one, all of them being executed in terra cotta and treated in an ornamental manner distinctively French. A cresting crowns this roof, and when illuminated at night by the many lights arranged in geometrical pattern, it might be likened to a chaplet of topazes around the brow of some fair queen.

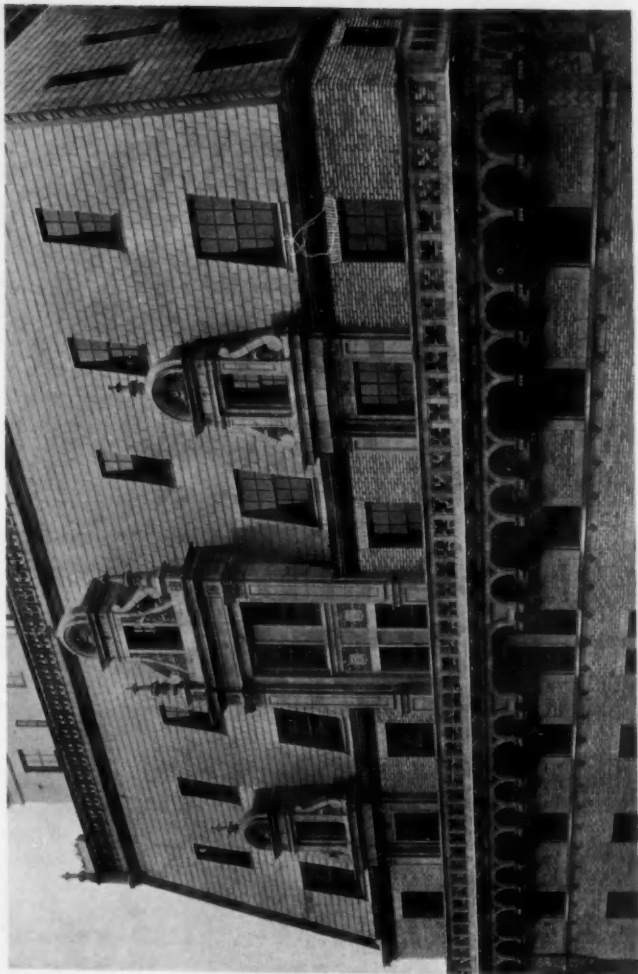
Had the architect stopped here, the building would have been complete, but on top of this roof is a one-story building suggesting an orangerie or similar structure. It is executed in white terra cotta and is connected to the elevator penthouses, which are symmetrically placed and ornamentally treated in the same material. This struc-



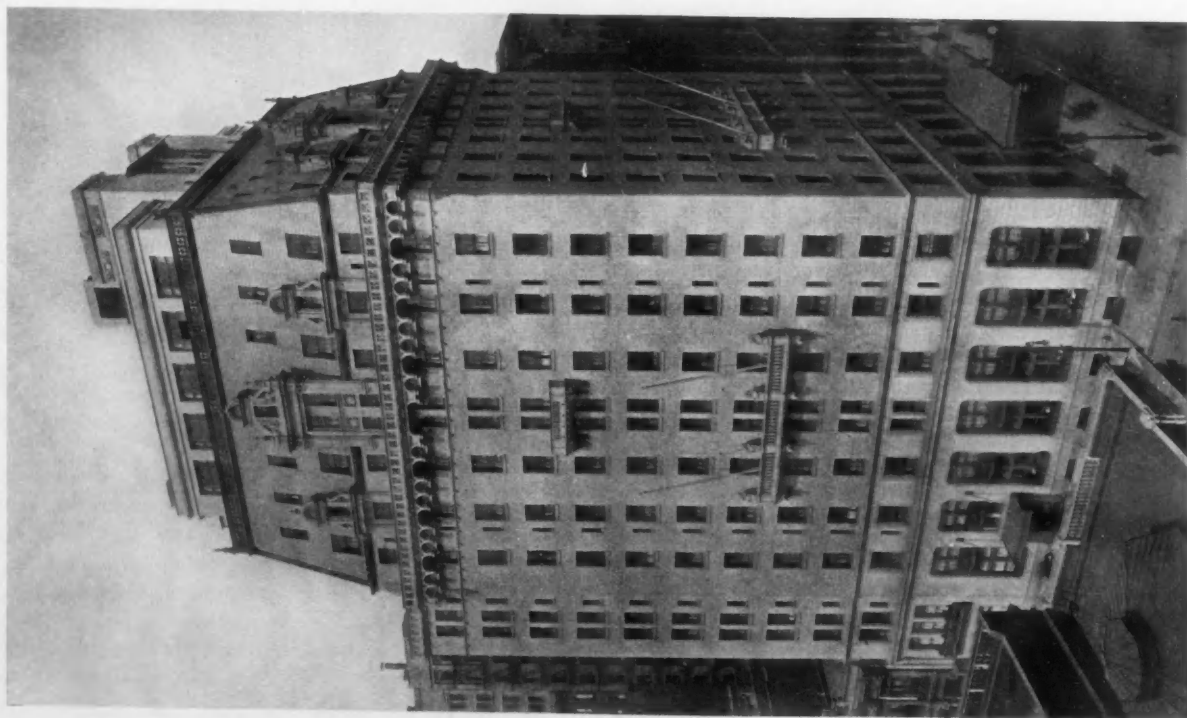
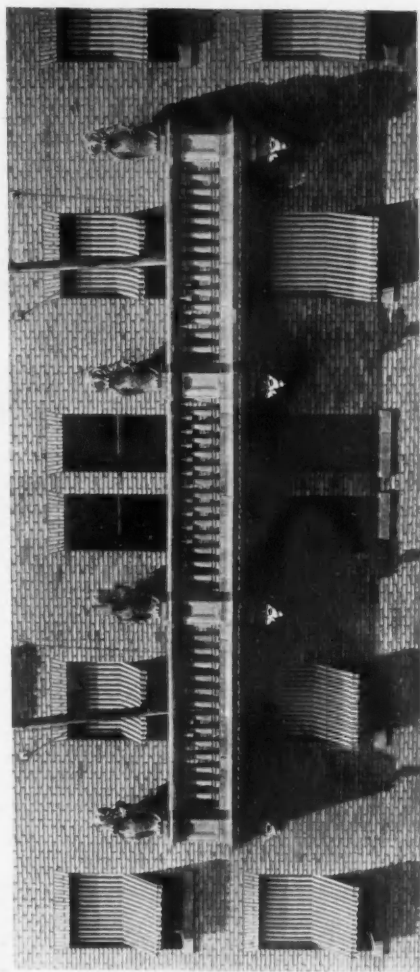
Terra Cotta Details.

THE EMERSON HOTEL, BALTIMORE, MD.

Jos. Evans Sperry, Architect.



GENERAL VIEW AND DETAILS,
THE EMERSON HOTEL, BALTIMORE, MD.
Jos. Evans Sperry, Architect.



ture is unique in treatment, although dissimilar to the building of which it forms a part.

Here is located the large banquet hall or ball room, convenient to the elevators and the necessary coat and retiring rooms. A large serving room completely equipped is near by and forms a necessary adjunct to these rooms. This banquet hall is in reality two rooms similarly treated, flanking a central smaller room from which they are separated by a single row of columns at each side of this smaller room. These columns support a barrel arch ceiling over the central room, but the ceiling of the rooms at each side are handsomely executed with cove and relief ornament in an adaptation of Louis XIV. period.

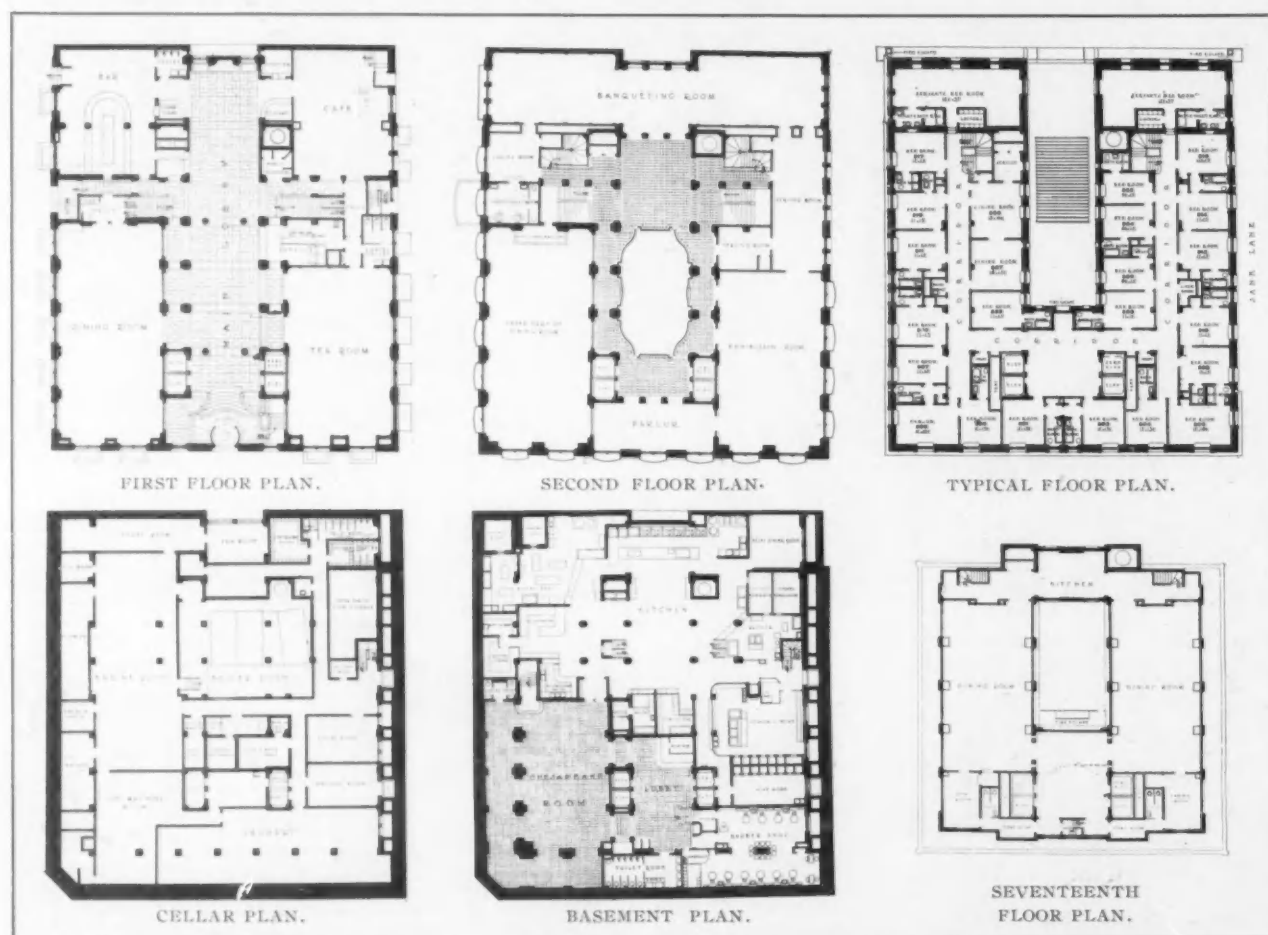
Entering the building from the street, after passing

ceiling in tones of gray, and Della Robbia ornament on the walls.

Opposite the tea room is the principal dining room with its beamed ceiling, richly decorated walls, and hangings of the Renaissance period. Great crystal chandeliers add a touch of ornament to this otherwise pleasing room.

The general design of the building savors of the French Renaissance, although, in its entirety, of no particular period. Here may be a suggestion of the period of Francis I., over there a suggestion of Louis XII., mingling with a slightly more Gothic feeling, occurring at various parts of the detail.

The skill of the designer is shown when the ornament has an easy movement and rhythmic action without a dis-



under a marquise of ample proportions and richly ornamented in the French Gothic style, one ascends from the vestibule a few steps and enters the principal lobby of the hotel, at the far end of which is an open fireplace with its richly embellished mantel of the French Chateau period.

In this lobby and around it are situated the principal offices and rooms of a semi-public nature, as are also the broad marble staircases leading to the floors above.

The walls are covered with English vein Italian marble, with columns of the same material supporting the galleries of the mezzanine story which opens into this lobby. The ornamentation here is of white and gold, which last material has been lavishly used. At one side is the tea room, broad and spacious, with quiet effect of walls and

cordant element, yet having sufficient emphasis to please the critic when observed from the viewpoint of the average citizen, but not enough to exaggerate the element of perspective and sense of proportion when observed from such a disadvantageous position.

The adaptability of architectural terra cotta to such motives as are represented in this building, and all others where ornament can be used, is quickly recognized; what other material would lend itself so readily to the enrichment of detail that one finds in the Gothic and Renaissance periods. Whether it be flat medallion ornament or heavily undercut as with the Gothic, there seems to be no limit to the effect that can be produced by a skilful manufacturer of this product.

Editorial Comment and Miscellany.

THE NEW CAMPANILE.

AFTER ten years of silence the bells of Campanile di San Marco, Venice, announced that the reconstructed tower, similar to the former one but erected with modern science and possibly with more enduring skill, has arisen in the same location.

At 10.40 on the morning of July 14, 1902, after dominating the piazza for just one thousand years, the old Campanile fell. When the debris had been cleared away and the foundations found intact, it was decided that the cause of the fall was due to the weakness of the lower walls. The added weight of the belfry, constructed later, and the weakened walls had been too much for the old Roman bricks that had already done service in the houses of the mainland for centuries before they were carted to Venice from the ruins of Altinum.

In starting the new Campanile, a ditch 16 feet deep, down to the level of the pile heads, was dug all around the old foundations to the width of about 12 feet, and carefully bratticed. Into the area were driven 3,076 piles of larchwood from Cadore, fresh cut so as to insure the presence of abundance

of resin. The average diameter of the piles was $8\frac{1}{2}$ inches. Larch was preferred to oak, partly because experience had shown its admirable power of resisting decomposition in clay, and partly because larch piles are straight while oak is often bent and twisted, and would therefore have left frequent interstices. The piles were on an average 13 feet long, and calculated to have a carrying power of 90,000 tons.

The new tower, which weighs above 20,000 tons, is composed of an inner and an outer shaft, between which mounts the inclined plane that leads

to the belfry. The walls of the outer shaft are 6 feet thick, and the interior of the tower presents a fine piece of brick construction, quite Roman in its finish and solidity.

The number of bricks employed is about one million. They are of a special size, made at Casale, near Treviso, of clay twice mixed and baked in wood-fired kilns. They contain salt in considerable quantities, which produces in certain weather a sort of white efflorescence all over the tower. These bricks are 12 inches long, 6 inches wide, and 3 inches thick.

PLATE ILLUSTRATIONS — DESCRIPTION.

CHURCH OF THE SACRED HEART, TAUNTON, MASS. PLATES 90-93. The exterior is of water-struck red brick and full matt glazed terra cotta. The main portion of the church — nave and two aisles — is 60 by 124 feet, with a



FIGURES IN CORNICE, MCKNIGHT BUILDING, MINNEAPOLIS. Executed by Northwestern Terra Cotta Company. Hewett & Brown, Architects.

seating capacity of nine hundred. The walls are comparatively plain with the view of future decorations, excepting the nave which is treated with richly modeled ornament and coffered ceiling. All wood finish, including doors, pews, etc., is of oak, while the floors are of hard pine. The direct-indirect system of heating is installed. The total cost of the structure was \$71,500, of which amount \$12,000 was spent for furnishings.



DETAIL BY T. E. BILLQUIST, ARCHITECT.

New Jersey Terra Cotta Co., Makers.



ENTRANCE OF CHURCH OF THE SACRED HEART, TAUNTON, MASS.

An example of archaic byzantine modeling executed in polychrome terra cotta by the Atlantic Terra Cotta Company.

Matthew Sullivan, Architect.



NEW ENGLAND TELEPHONE & TELEGRAPH CO. BUILDING,
BOSTON.

Built of Fiske & Co., Inc., Tapestry Brick.
Peabody & Stearns, Architects.

TERRA COTTA TILE FOR EXTERIOR WALLS.

OWING to the increasing use of terra cotta hollow tile for exterior walls of buildings the National Fire Proofing Company, as a result of careful study of the entire problem by their engineering department, has offered a series of suggestions which are intended to be of help to those who have to do with building codes. These suggestions are as follows:

1. Terra cotta hollow tile may be used for bearing walls



CHRISTIAN SCIENCE CHURCH, STAMFORD, CONN.

Walls of Natco Terra Cotta Hollow Tiles.
Dennison & Hiron, Architects.

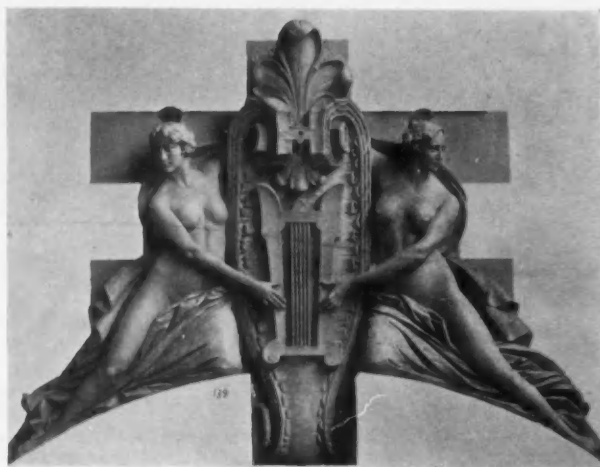
in buildings five stories or less in height, or for enclosure walls for skeleton structures of any height where the walls are carried from story to story on steel or concrete beams or girders, where said use is approved by the Bureau of Buildings.

2. All materials must be well burned, dense material of approved quality and thickness.

3. The thickness of the walls should not be less than is required by law for brick walls inside the fire limits. Outside the fire limits the exterior walls shall not be less than the following thicknesses:

A. For a one-story building, 6 inches.

B. For a two-story building, first story 8 inches, second story 8 inches.



DETAIL FOR THEATER.

Conkling-Armstrong Terra Cotta Company, Makers.
H. E. Kennedy & Co., Architects.

C. For a three-story building, first story 10 inches, second story 8 inches, third story 8 inches.

D. For a four-story building, first story 12 inches, second story 10 inches, third story 8 inches, fourth story 8 inches.

E. For a five-story building, first story 12 inches, second story 10 inches, third story 10 inches, fourth story 8 inches, fifth story 8 inches.

F. The foundation walls shall not be less than 4 inches thicker than the first story walls, provided that non-foundation walls shall be less than 12 inches thick.

4. If the walls are exposed to the weather, all the hollow tile must be of dense material and vitrified in burning, or they may be of dense or semi-porous material, hard burned and covered on the exposed sides with at least $\frac{3}{4}$ inch Portland cement stucco or pebble dash. Such hollow tile to be well scored with dovetailed grooves to receive coating.

5. Provide and set terra cotta slabs 1 inch thick under all floor beams as bearing plates for same.

6. Wherever girders or beams rest upon a wall so that there is a concentrated load on the hollow tile of over two tons, the tile



DETAIL, EXECUTED BY WINKLE TERRA COTTA COMPANY.

in thickness, the top course of the thicker wall must be made solid in the same manner.

7. Provided always that no tile shall be loaded to an excess of 30 pounds per square inch of net

supporting the girders or beams must be made solid by filling with Portland cement concrete of broken stone or gravel mixed 1-2-4, or by covering the openings with flat slabs; and wherever walls are decreased

section in compression, if set on end, or 150 pounds per square inch if set on the side.

8. All piers and buttresses that support loads in excess of five tons shall be filled solid with concrete.

9. Lintels spanning over 4 feet 6 inches in the clear shall rest on tile filled solid with concrete or on plate, slab, or brick.

10. All hollow tile shall be subject to regulation inspection and in no case shall the exterior shells be less than $\frac{15}{16}$ inch in thickness, and interior webs $\frac{5}{8}$ inch. The ultimate crushing strength shall be at least six times the load they are required to carry.

11. All hollow tile used in walls or piers shall be set in mortar composed of one part Portland cement and three parts of clean sand, well mixed to a smooth, moderately stiff

mortar. Lime well slacked and not to exceed ten per cent of the cement, by volume, will be allowed in the mortar.

12. Hollow tile may be also used for backing, facing brick, or hollow brick. If face brick or hollow brick is bonded into the hollow tile, the total thickness of the wall shall be estimated as the thickness of the bearing wall. If

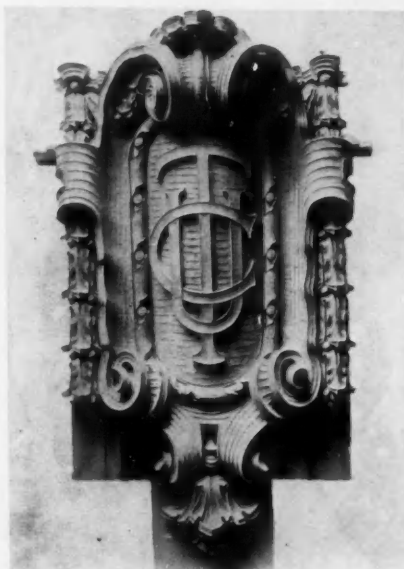


LOFT BUILDING, FOURTH AVE., NEW YORK.

All terra cotta from second story up.

Work executed by South Amboy Terra Cotta Company.

Rouse & Goldstone, Architects.



CARTOUCHE BY J. D. ATCHISON, ARCHITECT.
Executed by American Terra Cotta & Ceramic Company.

case shall the exterior shells be less than $\frac{15}{16}$ inch in thickness, and interior webs $\frac{5}{8}$ inch. The ultimate crushing strength shall be at least six times the load they are



DETAIL, RITZ-CARLTON HOTEL, NEW YORK.
Executed by New York Architectural Terra Cotta Company.
Warren & Wetmore, Architects.

the face brick or hollow brick is used as a veneer and tied to the hollow tile walls with metal anchors, said veneer shall not be considered to form part of the required thickness of any wall.

TERRA COTTA FOR THE EMERSON HOTEL, BALTIMORE.

THE architectural terra cotta for the Emerson Hotel, Baltimore, Joseph Evans Sperry, architect, illustrated in this issue, was furnished by the Conkling-Armstrong Terra Cotta Company.

IN GENERAL.

Meyer J. Strum, architect, announces the removal of his office to 116 South Michigan Boulevard, Chicago.

C. H. Page & Bro., architects, of Austin, Texas, have opened a branch office in the Union National Bank Building, Houston, Texas. Manufacturers' samples desired.

Veredon William Upham has been taken into partnership with Charles William Eldridge, architect. The style of the new firm is Eldridge & Upham; offices, Granite Building, Rochester, N. Y.

The firm of Patton & Miller, architects, Chicago, has been dissolved. Mr. Pat-

ton has formed a co-partnership with Maurice G. Holmes and Raymond W. Flinn, under the firm name of Normand S. Patton, Holmes & Flinn. Mr. Miller will continue practice under the firm name of Grant C. Miller, at 116 South Michigan Boulevard.

W. H. Weeks, architect, announces the removal of his office to 75 Post street, San Francisco, Cal.

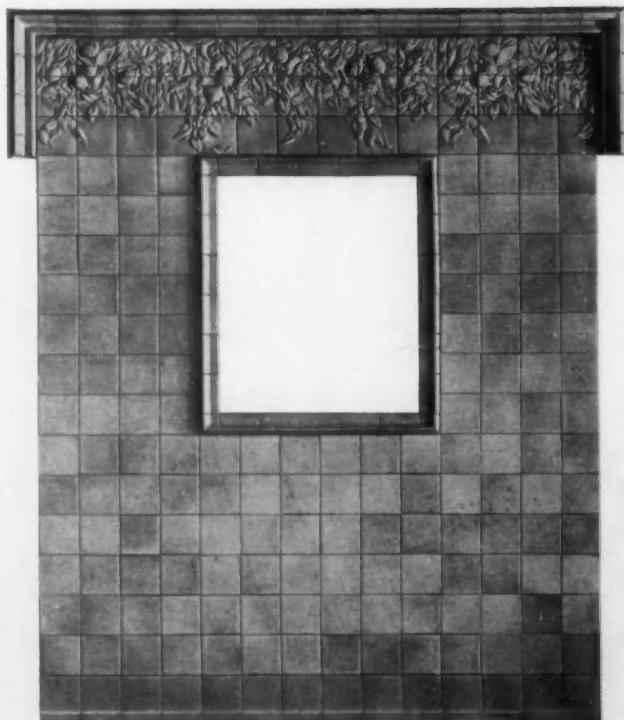
Hubert T. McGee, Richard J. Regan, and John J. Weller, Jr., have formed a co-partnership for the practice of architecture under the firm name of McGee, Regan & Weller, with offices in the Memphis Trust Building, Memphis, Tenn.



INTERIOR, FIRST BAPTIST CHURCH, PITTSBURGH.
Showing Guastavino Tile Ceiling between stone ribs.
Cram, Goodhue & Ferguson, Architects.



DETAIL OF BRICKWORK, NAVAL TRAINING STATION,
NORTH CHICAGO, ILL.
Brick furnished by Western Brick Company, Danville, Ill.
Jarvis Hunt, Architect.



EXECUTED IN ARCHITECTURAL FAIENCE BY
THE ROOKWOOD POTTERY COMPANY,
CINCINNATI, OHIO.

Sayre & Fisher Company furnished the brick for the Emerson Hotel, Baltimore, Joseph Evans Sperry, architect.

The architectural terra cotta for the Sacred Heart Church, Taunton, Mass., illustrated in this issue, was furnished by the Atlantic Terra Cotta Company.

The Atlantic Terra Cotta Company will furnish the architectural terra cotta for the following named new buildings: Community Building, Bronx, New York, James F. Meehan, architect; Tower Building, New York City, Starrett & Van Vleck, architects; Y. M. C. A., Atlantic City, Horace Trumbauer, architect; Building for the Buffalo National Gas Fuel Company, Wood & Bradney, architects; Railway Station, Hagerstown, Md., Charles M. Anderson, architect; Marshall Building, Cleveland, Ohio, W. S. Lougee, architect; Matthews Building, Pittsburgh, Pa., Rutan & Russell, architects.

Samuel Cabot, Inc., Boston, has just issued pamphlets describing Cabot's Damp-Proofing, for direct plastering on brick and concrete; Cabot's Protective Paint, a chemically purified, elastic, and durable paint that protects iron and steel from acids, rust, and other corrosion, and Cabot's Black Waterproofing, for waterproofing foundation, basement, and other



WOODWARD OFFICE BUILDING, WASHINGTON, D. C.

Built of Golden Craftsman Norman size brick,
Made by Pearl Clay Products Company.
Harding & Upman, Architects.

walls above or below grade. These materials have been long manufactured by this firm, and the pamphlets are gotten out merely to explain what the materials may be depended upon to do.

The Ironclay Brick Company, Columbus, Ohio, has just issued a small pamphlet in which their bricks are shown in color. Each type of brick illustrated is described in detail.

New York's tallest apartment house will be ready for occupancy next spring on the northeast corner of Park avenue and 79th street. It will be a seventeen-story house, five stories higher than the hitherto orthodox height for apartment houses of the finest and most expensive type. The erection of this building means a new epoch in apartment house construction in New York. The facade will present an attractive but simple exterior, granite being used for the lower floor and brick for the upper portion, the solid walls being relieved by a few artistic balconies. The architects are Warren & Wetmore and Robert T. Lyons.

in apartment house construction in New York. The facade will present an attractive but simple exterior, granite being used for the lower floor and brick for the upper portion, the solid walls being relieved by a few artistic balconies. The architects are Warren & Wetmore and Robert T. Lyons.

Mendelssohn Hall in 40th street, east of Broadway, New York City, is being torn down and in its stead will be erected a twenty-two story commercial building to cost approximately \$2,000,000. The plans call for a Kinemacolor Theater.



DETAIL BY PEUCKERT & WUNDER, ARCHITECTS.

(About 20 feet long.)
O. W. Ketcham Terra Cotta Works, Makers.

ONE HUNDRED BUNGALOWS—THE TITLE OF A 120 PAGE BOOKLET WHICH CONTAINS ONE HUNDRED DESIGNS FOR HOUSES OF THE BUNGALOW TYPE SUBMITTED IN THE COMPETITION RECENTLY CONDUCTED BY THE BRICKBUILDER. PRICE, 50 CENTS. ROGERS & MANSON, BOSTON.

THE NATCO HOUSE—THE TITLE OF A NEW 72 PAGE BOOKLET WHICH CONTAINS A SELECTION OF DESIGNS SUBMITTED IN COMPETITION FOR A HOUSE TO BE BUILT OF TERRA COTTA HOLLOW TILE AT A COST OF SIX THOUSAND DOLLARS. ALSO ILLUSTRATIONS OF HOUSES BUILT OF THIS MATERIAL, TOGETHER WITH ARTICLES DESCRIBING CONSTRUCTION, ETC. PRICE, 50 CENTS. ROGERS & MANSON, BOSTON.

Notice of Competition for Street Lighting Standards

A competition for designs of ornamental street lighting fixtures is announced by the Business Men's Association and Municipal Art Society of Hartford, Connecticut. Copies of the pamphlet giving details as to the desired designs and information as to the prizes offered can be secured of the undersigned.

C. J. BENNETT, for the Business Men's Association.
W. S. SCHULTZ, for the Municipal Art Society.

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History. Prof. H. L. Warren, A. M., F. A. I. A.

Construction. Prof. C. W. Killam, Assoc. M. Am. Soc. C. E.

Drawing. Mr. H. D. Murphy, Mr. H. B. Warren.

Ten other lecturers and instructors.

For circulars and other information apply to Prof. H. L. Warren, Chairman of the Council of the School of Architecture, Harvard University, Cambridge, Mass.

The University of Pennsylvania offers courses in Architecture as follows:

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- (2) Graduate courses of one year, permitting specialization in design, construction, or history; leading to the degree of M. S. in Architecture.
- (3) A special two-year course for qualified draftsmen, with options in design or construction; leading to a professional certificate.

For catalogue giving complete information regarding requirements of admission, advanced standing, summer school and atelier work, fellowships and scholarships, and for illustrated year book, etc., address DEAN OF THE COLLEGE, University of Pennsylvania, Philadelphia, Pa.

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TRADE MARK — REG. U. S. PATENT OFFICE

BULLETIN

RECENT WORK, illustrated in this issue of
THE BRICKBUILDER

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Boston.....Page 196

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